

INSIDE DOPE

by GEORGE F. TAUBENECK

What's Happened to Us?

That's a Lie!

What Happens When Government Tries to Guarantee Wages
The Old Army Game
As the Twig Is Bent
Back to the Main Track
The Main Track Is a Free Market

What's Happened to Us?

Until the Era of Monopolistic Unions casts a dark shadow across our nation, every American could "go places" if he were willing to put out that extra ounce of energy.

He could impress his boss by working late; he could educate himself by studying at night; or he could capture an inspiration and make his dream come true through sheer will-power and clock-ignoring energy-output and enthusiasm.

This he could do, and was goaded to do by his parents and Sunday School teachers, in pre-Roosevelt America.

Since 1933, however, loafing has become patriotic.

Our country had its normal share of loafers before FDR, to be sure. But they were loafers by choice and inclination—not by rational resignation. Their relatives took care of their minimal needs, lest the family be disgraced.

Nowadays men are told that unless they take it easy they aren't "socially conscious." If they put out extra effort, they are warned, poor people won't have enough to eat.

That's a Lie!

Nobody has starved to death in our country; nor has anyone lacked the chance to eat sumptuously and lavishly.

The choice between luxury and hoboism was one which every American could make—up until 1933.

Since that time, however, Labor Union Bosses have deified the loafer and shirker, and pooh-poohed or even restrained forceably the busting-his-buttons worker.

"It isn't how much you do," they have exhorted, "but how much you get."

"Trust in us Leaders," they have insinuated, "and you'll live off the fat o' the land."

We submit the thought that if everyone loaf, our country will collapse.

Union-inspired slow-downs and feather-bedding, and politically-inspired "do as little as possible while getting all you can" attitudes, will surely return America to a pastoral existence if they continue.

Instead of owning automobiles and bathtubs and home freezers and television sets, we'll hunt and fish for food and clothing if everyone tries to "get by" with doing as little as he can.

Let's suppose that the Slow-Down Principle were adopted by the maligning Bosses. Supposing they loafed while signing pay-checks—thus postponing the Union Laborer's wage collections. They could do that, of course. They'd be in style if they did!

Who'd scream then? You know. Loafing benefits nobody—least of all the loafer. We all have to do an honest day's work regularly unless we are willing that our remarkable country be returned to the Indians.

Winter nights in tepees would be mighty uncomfortable.

If an assured wage is granted to one group of Union Members—no matter how much or how little they put out—that guaranteed wage becomes a tax on the willing workers. Furthermore, the man who accepts an income he doesn't earn loses his independence. He is beholden to the Union for his continued livelihood.

What Happens When Government Tries to Guarantee Wages

Only by abolishing the right to change jobs can guaranteed wages for loafers and misfits be assimilated into an honest economy. And then all workers suffer.

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Defense Dept. Lists Key Occupations Eligible for Reservist Deferments

WASHINGTON, D. C.—Only those reservists and National Guardsmen in the air conditioning and refrigeration industry who hold a limited number of key positions stand a chance of getting an occupational deferment once they receive their mobilization orders.

This was indicated by a statement of policy on deferment issued recently by the U. S. department of defense.

The policy does not apply to draftees. They will receive more lenient treatment.

Essentially, a deferment for a reservist "who holds a critical occupation necessary to a highly essential activity" will mean only a delay in reporting for active duty. He will be deferred until a satisfactory replacement can be found, a period not to exceed six months, or in special instances, a year.

The defense department listed three criteria for delay in call to active duty. They were:

1. Employment, either principally or otherwise, in a critical civilian occupation or essential activity. In this case, it must be established by the reservist that there are unique circumstances surrounding his work which give him essential knowledge or experience not possessed by any available replacement possessing the same skill.

2. Occupation of a critical key managerial position. In this case the reservist must show in writing that his call to active duty would cause material loss in production, services, or research necessary to the national health, safety, or interest. The urgency of the civilian work must outweigh the need of the armed forces for his services.

The department added here that

Policy on Draftees

Deferments from the draft by P. L. 759, 80th Congress and P. L. 599, 81st Congress, "Selective Service Act of 1948" which states:

"If an employer wishes to seek deferment for an employee eligible for the draft he may do so by filing such request in writing with the local board together with any information in support of his request. Such information may include any documents, affidavits, or depositions supporting the request." However, to be considered for deferment, the following must be fulfilled:

"A registrant's employment in industry shall be considered to be necessary to the maintenance of the national health, safety, or interest only when all of the following conditions exist:

"1. The registrant is, or but for a seasonal or temporary interruption would be, engaged in such activity.

"2. The registrant cannot be replaced because of a shortage of persons with his qualifications or skill in such activity.

"3. The removal of the registrant would cause a material loss of effectiveness in such activity."

duty of men under 26 years of age will be considered only in exceptional cases.

3. Enrollment in educational institutions or engaged in research and scientific activities of primary interest to the department of defense.

Bases for determining whether or

(Concluded on Back Page, Column 1)

Westinghouse Issues 'Black Market' Warning On Builder Sales

MANSFIELD, Ohio—A warning has been issued to Westinghouse Appliance Division distributors, it is reported, cautioning them to check into apartment house and builder sales to make sure they are "legitimate" in order to prevent "black market" operations in refrigerators ostensibly sold to that market.

The warning pointed out that because of the shortage of merchandise some "black market" operations had already started, and pointed out that "after the war this sort of thing was very prevalent, particularly in the apartment house and builders' market." Distributors were urged to check all orders and deliveries carefully to prevent refrigerators getting into black market channels.

June Refrigerator Sales

Top Half-Million Mark

NEW YORK CITY—With well over a half million refrigerators sold during June, the 14 manufacturing firms reporting to the National Electrical Manufacturers Association chalked up a record 3,062,289 sales during the first six months of the year.

More than 1,000,000 8-cu. ft. refrigerators were sold during the first half of 1950, the Nema report revealed.

The six months record was approximately 33% higher than sales during the same periods in 1948 and 1949 and double those of 1947. It

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N. Y. Water Policies May Hit Small Units

NEW YORK CITY—A further tightening of regulations on refrigeration and air conditioning units that use water "is in prospect," declares New York City Water Commissioner Stephen J. Carney.

Carney stated that he had been conferring with a group of 25 representatives of refrigeration and air conditioning manufacturers, and that this group would appoint a committee to help him study the problem of further conservation of water used by cooling systems.

Early this year the Department of Water Supply set forth rules specifying that all water-using refrigeration and air conditioning equipment of 3 tons or more capacity should use some water-conserving means, the regulation being applied both to new installations and to old equipment.

Now, however, the commissioner is pointing out that even a 3-ton unit wastes 2 to 4 gals. of water a ton a minute. The waste of water from the thousands of small cooling systems could become a burden that the city's water supply system could not stand, particularly as the number of systems continues to increase over the year.

"The common objective of the committee of city officials and industry members," Carney said, "will be to cut down water waste without working a hardship on the industry.

The industry men recognize our great shortage hazard and want to go along with us. The conclusions we reach, I am sure, will have an effect far beyond the boundaries of New York City, so what we do must be right."

Freezer-Video 10% Tax Seen In Effect Oct. 1

WASHINGTON, D. C.—The proposed new 10% excise tax on home freezers and television receivers will in all probability not become effective before Oct. 1, according to informed sources here.

The Senate Finance Committee has already approved the 10% tax imposition on freezers and TV receivers for inclusion in the administration's "stop-gap" revenue bill.

Usual specification in instances of this kind is that the tax does not become effective until the first day of the first month starting 10 days after the President signs the tax bill. Thus it would seem that Oct. 1 would be the earliest date on which the tax might be imposed.

No decision is said to have been reached as yet on the matter of whether or not a floor stock tax will be collected on freezers and TV sets in the hands of distributors and dealers.

Calif. Plumbing Code Amendment Bid Fails

SACRAMENTO, Calif.—A proposal to amend the section of the California Administrative Code defining a plumbing contractor has been dismissed by the Contractors' State License Board.

The proposal, advanced by the California State Master Plumbers Association, was vigorously opposed by the Refrigeration Contractors Association of Northern California and other groups.

It would have changed the definition of a plumbing contractor to include the phrase (in italics): ". . . by providing a permanent means for supply of safe, pure, and wholesome water, to any and all fixtures or appliances which require any solid connection to the water system, either with fresh water in, or waste water out. . . ."

The board rejected the proposed amendment at a recent statutory meeting held following two public hearings of the matter. It gave the following reasons for its action:

"The proposal does not have the full support of the proponents and

(Concluded on Back Page, Column 5)

Victor Products Boosts Prices as Costs Rise

HAGERSTOWN, Md.—Victor Products Corp. has announced a general price increase effective with all shipments on and after Aug. 15, according to J. K. Noel, Jr., vice president in charge of sales.

The increases amount to 5% on all models of freezers except the recently announced 7½-cu. ft. "Polar Cub" model, which carries a 10% price increase. Other models in the Victor line have capacities of 9, 12, 16, 20, and 30 cu. ft.

Most of the commercial products manufactured by Victor, including beverage coolers, milk coolers, ice makers, and frozen food display merchandisers, also have been increased 5%. However, prices on the standard sectional walk-in rooms are not being advanced at this time, and the company is hopeful that an increase can be avoided.

Victor explained that the increases were necessary due to rapidly advancing costs.

Gov't Agencies All Want Part In Control Setup

No Administering Policy Set as 'All-Out' Standby Controls Near Approval

WASHINGTON, D. C.—Passage of the Economic Controls Bill giving the President powers for allocation of materials, rationing of finished goods, and regulatory powers over prices, wages, and credits, seems so assured that the big debate in the nation's capital now seems to be over "who will administer the regulations?"

It is considered unlikely that the Senate will take action on the Controls Bill until sometime during the week of Aug. 21, but the group of Republican senators who favor the bill are said to have instructed Sen. Kenneth Wherry (Neb.) the minority leader, to work with the Democrats in getting a bill through as quickly as possible.

The question of who is to administer the economic controls has resulted in some "infighting" by various Government agencies. The problem would be solved if a provision in the measure now being considered by the Senate is voted into the bill. This provision would require the President to set up new control agencies.

Here's the lineup on "who wants what" powers. The Department of Commerce wants its department to handle allocations and priorities. Secretary of Labor Maurice Tobin is convinced that manpower and wage controls belong under his jurisdiction. The Department of Agriculture wants control over food rationing and prices. The Department of the Interior believes it should naturally have control over coal, gas, oil, and electricity.

President Truman has announced his desire to hand over administration of such matters to existing departments. And Stuart Symington, chairman of the National Security Resources Board, is said to favor this viewpoint. But many of the other officials in the N. S. R. B. are said to favor a plan whereby the Board would supervise a new set of control agencies.

One point in favor of new independent agencies is the problem of trying to find administrators from the business world—as was found necessary to do in the days of World War II—who would be willing to come in and work under the politically dominated government departments.

WHAT BILL CALLS FOR

The House has already passed its version of the Economic Controls Bill, giving the President authority to do the following things:

1. Assign priorities for defense work, require acceptance and performance of defense contracts and allocate materials and facilities to meet such needs.

2. Requisition equipment and supplies urgently needed for defense, setting fair compensation, which the individual owner may challenge in the courts if he deems it insufficient.

3. Make loans up to \$2 billion and such guarantees as are necessary to expand productive capacity and supply and to build stockpiles of critical materials.

4. Apply price, wage, and rationing controls where he deems them necessary to stop inflation, with full discretion left to try voluntary or selective controls before resorting to blanket regulation.

5. Use existing agencies of government to administer those controls until complete regulation is applied when he shall create an over-all administrative agency, similar to the Office of Price Administration of World War II.

6. Enforce stabilization regulations by injunctive action, by prosecution (penalties run to a year in jail and \$10,000 fine) or by suit for treble damages, plus \$10,000.

7. Regulate consumer and real estate credit as a safeguard against inflation, the realty curbs to apply only to new construction.

8. Waive anti-trust laws under certain circumscribed conditions in

(Concluded on Page 4, Column 3)



with a 

DRY-KOOL BOTTLE COOLER

You eliminate slippery wet bottles with a United Dry-Kool. This fine bottle cooler features quick EVEN cooling, clean DRY handling and United's exclusive "Lift-A-Way" doors. Manufactured in 4, 6, 8 and 10 foot sizes, the Dry-Kool can be had with either detached or self-contained refrigerating unit.

NO WASTE SPACE

United Dry-Kool bottle cooler efficiently swallows case after case in its roomy, well-planned interior.

SIMPLE TO INSTALL

Dry-Kools present no installation problems... and are attractive fixtures in any business establishment.

For Complete Information Write or Phone

UNITED REFRIGERATOR COMPANY
HUDSON, WISCONSIN

Carrier Yearly Profits Hit New High, But Wampler Foresees Supply Problem

SYRACUSE, N. Y., Aug. 15—Net profit of Carrier Corp. for the 12 months ended July 31, 1950, was \$2,483,789, or \$3.83 per common share, as compared with \$1,668,743, or \$2.44 per common share, for the preceding similar period.

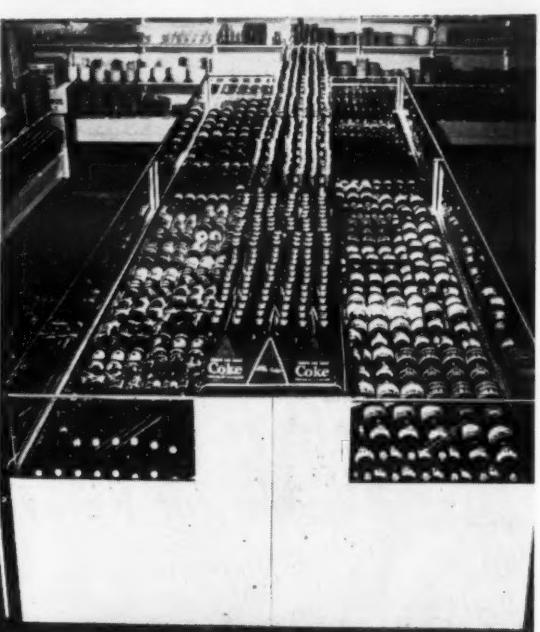
Completed business totaled \$54,161,991. The comparable figure for the 12 months ended July 31, 1949, was \$50,465,798.

New orders were booked in the amount of \$53,417,159. The total for the preceding 12 months was \$46,155,509. On July 31, 1950, Carrier Corp. had a backlog of unfilled orders amounting to \$18,479,263, as compared with \$16,308,247 a year earlier. These figures are exclusive of a sizeable government contract which has been partially completed.

Commenting on Carrier's current affairs, Cloud Wampler, president of the corporation, stated: "During the three months ended July 31, 1950, shipments exceeded those of any previous quarter in the history of the company, thereby offsetting the relatively low performance during the previous six months.

"While new orders continue to be booked at a highly satisfactory rate, many uncertainties prevail with respect to the months immediately ahead and also the longer term future. The most important of these has to do with the procurement of materials, especially steel."

Success of Display Sold Another Like It



These four Sherer 10-ft. self-serve cases, arranged in an island display, have so stimulated beer and pop sales at Sewell's market in Reno that the proprietor has decided to buy four more open cabinets like them for selling packaged fresh meats.

Bastian-Blessing Builds Addition to Chicago Plant

CHICAGO—The Bastian-Blessing Co. here, manufacturer of fountain-luncheonette equipment, is building an extension to its Chicago plant, to permit the expansion of its Engineering and Research Departments.

The new wing, like the rest of the building, is built of light pressed brick with 70% of its walls clear glass and is air conditioned. This new addition brings the floor space of the plant to nearly 240,000 sq. ft.

Harvester Set To Begin New Chicago Parts Depot

CHICAGO—International Harvester has announced that construction work on a new building in Broadview, a suburb of Chicago, will begin within the next two weeks. The building will cost approximately \$5,000,000.

The parts depot, the ninth of Harvester's network of twelve to be installed throughout the United States, will serve as a wholesale parts distribution center for company-owned district sales offices and branches and retail dealers located in Illinois, Indiana, western Michigan, southern Wisconsin, eastern Iowa, and northern Kentucky. The machine transfer will distribute International Harvester's refrigeration, motor trucks, farm tractors and farm implements, and industrial power equipment to a somewhat larger area but will not make any shipments abroad.

Market's Bottled Drinks Go Fast from Open Cases

RENO, Nev.—"Buy Your Ice Cold Drinks Here."

The old familiar cry of the pop vendor is not needed in Sewell's market here. Soft drinks and beer are displayed under refrigeration in four Sherer Model 2410C 10-ft. self-serve cases placed back-to-back. Customers just cannot miss the invitation to buy offered by this mass display.

Sewell's reports that volume has greatly increased since installation of this imposing display of beverages in open cases. Proof of the successful operation of the self-serve cases themselves is found in the fact that Sewell's has just placed an order for four duplicate cases of the 2410C model which are to be used for the display and sale of packaged, fresh meats in conjunction with the regular service meat cases.

Illinois RSES Convention Planned for Sept. 15-17

WAUKEGAN, Ill.—A special program dealing with the "practical rather than the mechanical" end of refrigeration is planned for the 13th annual convention of the Illinois Association of the Refrigeration Service Engineers Society, announces Floyd H. Tompkins, convention chairman.

The meeting will be held here Sept. 15, 16, and 17 at the Karcher hotel with the Great Lakes chapter as host.

Details of the program have not yet been announced, other than that there will be a banquet Saturday night, Sept. 16, followed by entertainment and dancing.

Manny Kern's Dream of an Air Cooled N. Y. City Climaxes Personal War of Air, Open Windows

NEW YORK CITY—Manny Kern of Glen Oaks, Long Island, described as being in charge of the air conditioning department of a Brooklyn electrical contractor, apparently has the kind of fervent feeling for air conditioning that all manufacturers and distributors would like to inspire in their employees.

Kern is quoted in an article "Getting Hot About Keeping Cool," by Sam Boal, appearing in the Aug. 6 *New York Times* Magazine section. Boal analyzes the function of air conditioning in one of the best explanations for laymen yet written, then quotes the Brooklyn air conditioning enthusiast as follows:

"Kern tends to regard air as his personal enemy, and he spends all his working hours trying to thwart it. If it is cold, he heats it; if it is hot, he cools it. If it is dirty, he washes it. If it contains pollen, he strains it. The only thing he won't do is let it alone."

"Next to air, Kern's bitterest personal enemy is a window. The sight of an open one shakes him to his roots."

"Windows," he says. "With so many windows around it's a wonder we aren't all dead. Men get killed washing them and people get cut when they break. Kids are always falling out of windows and they make a terrible noise when they're slammed."

"A window should be used for only one thing: to look out of or to

look in. That's all it's good for."

"When he isn't working on air conditioning installations, Kern occasionally permits himself to dream; he would like to air condition New York City—all of it. He says he would place a dome over the city."

"Plastic or something" he explains. "Condition all the air in the city. People would be happier, healthier, smiling all the day. Of course there'd be problems. Lots of toxic gases would have to be controlled with. Something would have to be done about condensation on the shell and we'd have to consider the problem of sound, since it might be reflected."

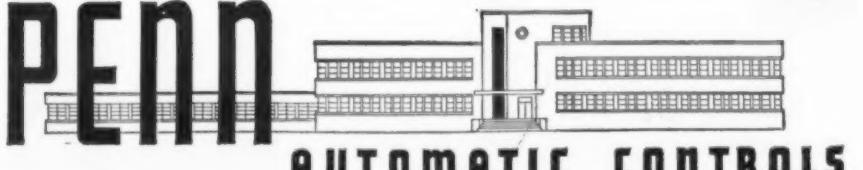
"But it would be wonderful. It would take a lot of power, sure, but we have a lot of power. Atomic power. What better use for that, will you tell me?"

Court Restrains Baumgarten From Cutting G-E Prices

NEW YORK CITY—A temporary injunction restraining Arthur E. Baumgarten, doing business as Dalmo Sales Co., Brooklyn, from selling General Electric products at less than established fair-trade prices was granted recently to the manufacturer, the General Electric Co., by Supreme Court Justice Joseph Gavagan.



Interior (above) and exterior (right) of Type 325. Timer can be set for one to eight "off periods" every 24 hours. Length of "off period" varies automatically with the frost condition of the coil.



AUTOMATIC CONTROLS

FOR HEATING, REFRIGERATION, AIR CONDITIONING, PUMPS, AIR COMPRESSORS, ENGINES, GAS RANGES

Pastor Believes New Cooling System Will Keep Flock 'Interested' In Sermon

LIBERTY, S. C.—People can now worship in air conditioned comfort at the Eastside Baptist church here.

At a cost of \$1,725, the church has just completed installation of two five-ton units in the auditorium to become the first church in this section with air conditioning.

Rev. Mack A. Bryant, pastor, said the church had experimented with fans around the walls, but found they were too noisy. Then church officials considered installation of two attic fans.

Finally they decided on air conditioning, according to the pastor, because, "people generally will admit that no matter how good a preacher is, the listeners can keep their minds on his message better if they are not melting down from the heat."

"It is my contention that since theaters, banks, restaurants, and other commercial establishments have installed air conditioning for the comfort of their patrons, I feel the church should do as much."

Fire Destroys \$20,000 in Equipment at Allied Traders

BAKERSFIELD, Calif.—Fire, believed to have been caused by a static charge in a supply of carbide, destroyed an estimated \$20,000 worth of evaporative coolers, heaters, parts, sheet metal, and tools at the Allied Traders, Inc. factory here on Aug. 7.

The firm had just the week before leased and occupied the building on the outskirts of the city to manufacture coolers and heaters. About two thirds of the contents of the brick building were lost in the blaze, firemen said.

Refrigeration Economics Makes 6% Boost In Prices

CANTON, Ohio—A price increase of 6% became effective Aug. 15 on prices of "Recoy" refrigeration and air conditioning products manufactured by Refrigeration Economics Co. here.

The firm produces air conditioning equipment, unit coolers, and other components.

REWA Board Discusses Joint November Meeting with REMA

CINCINNATI—Board of directors of Refrigeration Equipment Wholesalers Association held its summer meeting Aug. 17 and 18 at the Terrace Plaza hotel here.

Among the items of business discussed at the meeting were plans for the joint Refrigeration Equipment Manufacturers Association-Refrigeration Equipment Wholesalers Association to be held Nov. 2-4 of this year at White Sulphur Springs, W. Va.

June-July Sales Records Set As UsAirco Expands Production

MINNEAPOLIS—L. P. Hanson, vice president in charge of sales, United States Air Conditioning Corp. here, reports that sales for June and July established new 1950 monthly sales records for the company.

Hanson added new business booked during the first week of August indicates that sales are still going up. Production facilities have been expanded to take care of the increasing demand for all types of UsAirco equipment, he said.

Dethermorator Co. To Specialize in Air Cooling, Refrigeration

BROOKLYN—H. E. Cropley, formerly superintendent engineer for Silver and Kerr Lines and Francis J. Mc Nulty, formerly of Mc Nulty Shipyards, announce the formation of the Dethermorator Co., with plant and offices located at 80 Hamilton Ave., here.

This company will specialize in all types of refrigeration and air conditioning for home, industrial, and marine plants.

Cropley will be in charge of all engineering, while Mc Nulty will handle the managerial duties of the company.

Seeks More Warehouse, Plant Space

Masterfreeze Corp. Gets U. S. Contract For 386 Pre-Fab Sectional Walk-Ins

SISTER BAY, Wis.—Masterfreeze Corp. here is now working on the fulfillment of two government contracts calling for 386 pre-fabricated sectional walk-in refrigerators, reports E. F. Anderson, president of the company.

Total value of these contracts runs more than \$600,000, the Masterfreeze Corp. official stated. The walk-in refrigerators being made for the government are aluminum clad interior and exterior and with a few exceptions are similar to the company's regular production. The contracts call for the box only, the condensing units and unit coolers being furnished by other suppliers.

Anderson says that in order to continue production on the company's regular line of walk-in coolers and home and farm freezers, it has rented two additional warehouses

and is negotiating the taking over of another small plant.

Masterfreeze Corp. is the result of the merger of Master Refrigeration Sales & Service of Milwaukee and Masterfreeze Corp. here. The company now operates Master Refrigeration Sales & Service Co. as a branch office at Milwaukee.

Other officers of the company in addition to Anderson, the president, are: vice president, Raymond L. Beyer; secretary, N. H. Gutknecht; and treasurer, D. E. Anderson.

Army Accepts Traulsen Bid

WASHINGTON, D. C.—Traulsen & Co., Long Island City, N. Y., was awarded a contract of \$116,388 to make 225 refrigerators of 4-cu. ft. capacity, the Department of the Army announced.

Philco Begins Allocating Products, Outlines Plans For More Gov't Production

PHILADELPHIA—Philco Corp. has been "compelled to allocate refrigerators, freezers, air conditioners and ranges, as well as television and radio receivers, to our distributors and dealers," it was stated by William Balderston, president of the company, in reporting on current company operations.

The Philco official said that it has set aside separate facilities which are being devoted exclusively to government work in the radar, electronics, and thermal fields.

"The company is in a position to very substantially increase its production for the government, while at the same time carrying on a high volume of civilian production," Balderston added.

In the three months to June 30 sales of Philco Corp. totaled \$67,525,000, compared with \$50,261,000 in the second 1949 quarter.

Big Sales Spurt Cancels Typhoon Shut-Down Plan

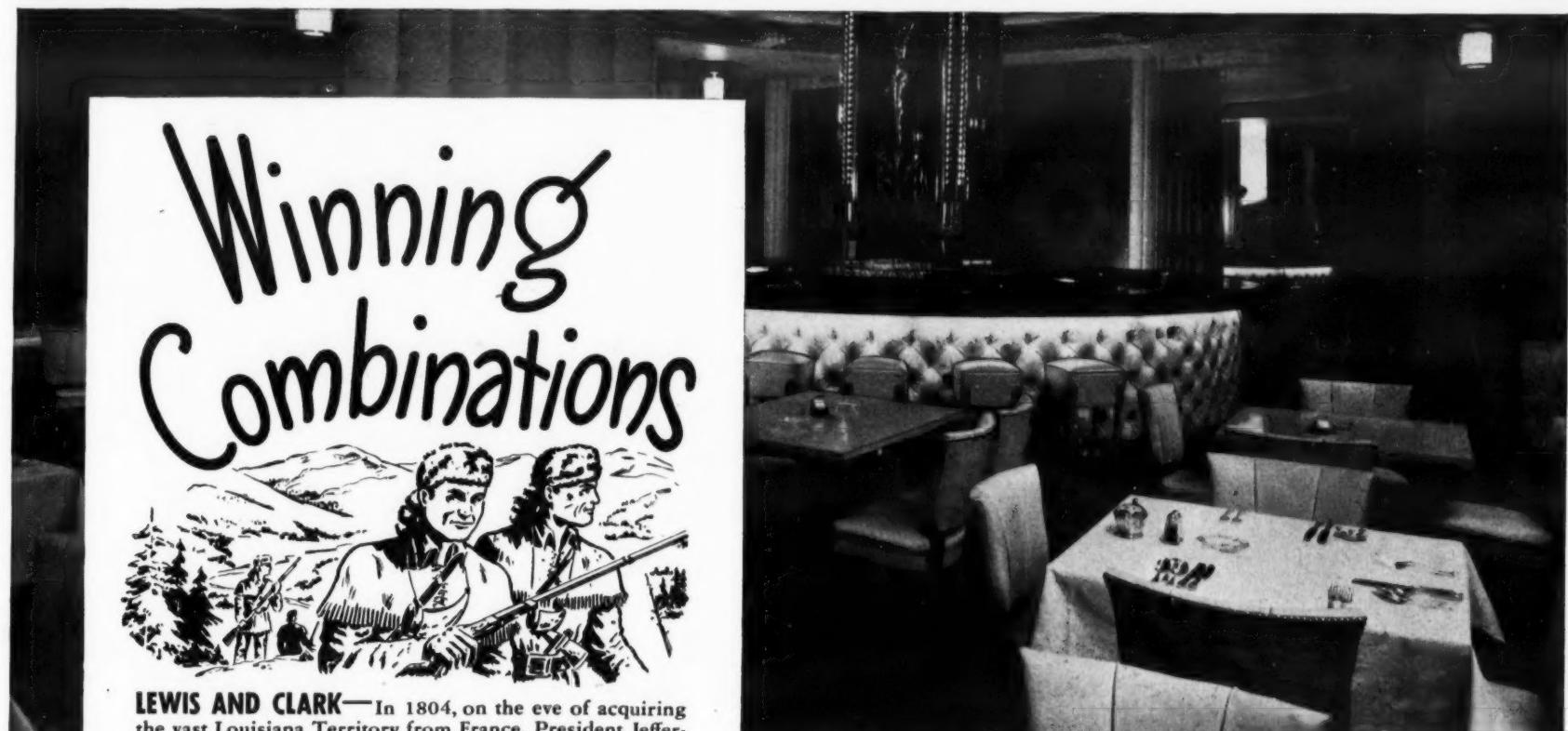
NEW YORK CITY—Because of the exceptionally high influx of late season orders this year, the Typhoon Air Conditioning Co., Inc., has informed its employees that there will be no general vacation shut-down.

In the past, Typhoon has usually been able to close shop for the last two weeks of August, but this year only half of the office and shop employees will go on vacation for the period, the other half taking vacations the following two weeks.

Frigid Igloo Will Guarantee New Price Levels Until Nov. 15

YONKERS, N. Y.—S. James Krakow, executive vice president of Frigid Igloo Mfg. Corp. here has announced that his firm will guarantee its prices up to Nov. 15, 1950.

The company has issued a new price list which becomes effective on Aug. 21.



Today, too, manufacturers of electric refrigeration and air conditioning equipment are blazing new trails, exploring new sales territories by combining their fixtures with Servel Supermetc. Because they've found . . .

Supermetc's Winning Features Assure Winning Performance

Experience has proved that a good fixture plus Servel Supermetc provides an unbeatable combination. Supermetc's outstanding performance is due to these superior features:



SEALED-IN MOVING PARTS

All moving parts of the Supermetc motor-compressor assembly are fully sealed against moisture and dirt. Super-tough bronze finish resists corrosion and rust.



OIL-FREE REFRIGERANT

High capacity and efficiency are maintained because virtually no oil can enter the refrigerant circuit. Running parts may function without fear of oil "slugging" damage.



SMOOTH, QUIET OPERATION

Designed and built for smooth-running operation, Servel Supermetc is ideally suited to the modern requirements of air conditioning and refrigerated fixtures where quietness is most desirable.



FORCE-FEED LUBRICATION

Servel's force-feed lubrication system completely and constantly protects every vital element—bearings, wrist pins, pistons—for extra years of trouble-free service.



HIGH-TORQUE MOTORS

Supermetc motors start easily under any normal operating condition. Ample reserve capacity is provided for in heavy-duty construction. Sealed-in design eliminates manual oiling.



SIMPLE, COMPACT DESIGN

Troublesome mechanisms have been eliminated—no belts, gears, seals or pulleys. No expensive motor replacements. Supermetc is easy to install, easy to check.

Plus—SERVEL'S FIVE-YEAR PROTECTION PLAN—Every fractional-size Supermetc (1/4 through 3/4 H.P.) is warranted for five full years. Fixture manufacturers are relieved of field replacement problems. Conveniently located Servel Wholesalers everywhere carry complete parts stocks, power units, and replacements for all models. For complete details write Servel, Inc., Electric Refrigeration Division, Dept. A-83, Evansville 20, Indiana.

Servel SUPERMETC

Models for every electric refrigeration and air conditioning use... 1/4 to 5 H.P.



Limited Controls Can Help Country Most, Wilson Says

WASHINGTON, D. C.—Limited economic controls will keep America's economy stable, Charles E. Wilson, president of the General Electric Co., advised President Truman at a White House interview last week.

Wilson opined that consumer prices have remained pretty well in line in the face of rising production costs. Further production cost rises will determine whether or not these price levels can be maintained, he indicated.

As for General Electric, he commented that the company has held the line on prices of all its major consumer goods and hoped to continue to do so. Current labor negotiations will have a strong bearing on its ability to restrain price rises, he indicated.

Record Sales at Seeger Prompt Extra Year-End Cash Dividend

ST. PAUL—The board of directors of Seeger Refrigerator Co. has declared an extra year end cash dividend of \$1 per share, in addition to the quarter cash dividend of 25 cents per share on the common stock.

Both dividends are payable on Sept. 27 to stockholders of record at the close of business Sept. 8.

"The volume of sales for the fiscal year ending Aug. 31, is expected to total between \$80,000,000 and \$82,000,000—the largest amount in its history," Walter Seeger, president, said today.

Kelvinator Ups Prices Of 3 Freezers \$10-\$30

DETROIT—Nash-Kelvinator has announced increases in prices of three home freezer models, effective Aug. 14.

The new increases only partially restore a price reduction that had been made July 5, the announcement revealed.

In a communication to dealers the Kelvinator management told dealers that the July 5 reductions had been made to meet competition, and that the company hoped to offset some of the reduction through savings in manufacturing costs.

This has not become possible, it was stated, because of the national preparedness program, and it thus became necessary to adjust prices in relation to present costs and possible manufacturing schedules.

New and old prices on the freezers are:

Model No.	New Price	July 5 Price	June Price
FR 92	\$329.95	\$299.95	\$339.95
FR 122	379.95	369.95	389.95
FR 202	549.95	529.95	564.95
FL 6	229.95	229.95	239.95

Lewyt Corp. Gets \$16,750,000 Army Signal Corps Contract

BROOKLYN—The Lewyt Corp., vacuum cleaner manufacturer here, has announced that it was awarded a \$16,750,000 FM radio transmitter and receiver manufacturing contract by the U. S. Army Signal Corps. This order, it was reported raises the total contracts assigned to Lewyt to \$48,000,000.

Economic Controls Bill--

(Concluded from Page 1, Column 5)

the interest of defense production.

When shortages and price rises first hit, members of Congress received a flood of mail urging all-out controls—and quick. In the past 10 days this type of mail to senators and congressmen has fallen off considerably, but the sentiment is still predominantly in favor of controls, and is said to be responsible for the House action calling for all-out controls to be used at the discretion of the President.

Typical of some of the letters were the following:

From the president of an investment finance company:

"I am against all controls in government, but I am more afraid of runaway inflation. Freeze all prices and all wages at the present date or a month back."

From an oil heating equipment manufacturer:

"I do hope you are successful in rolling back prices. On June 16 I paid 10 cents a pound for galvanized sheets. Today I tried to buy 2,000 pounds, but could only afford 1,000 because they had risen to 14 cents a pound."

From a home furnishings retailer:

"We need some brake on the mad spiraling that is already taking place. In one week average costs to us are 10% higher. The government should step in with controls. We're at war."

Reliable Refrigeration Moves

JOHNSON CITY, N. Y.—Reliable Refrigeration, appliance and television dealer, has opened its new store at 227 Main St.

Auction Sale

Nebraska Dealer Finds This Type Promotion a Good Way To Reduce Stocks of Used Appliances

LINCOLN, Neb.—An auction sale and a frank discussion of the economic situation were used recently by local dealers with very good results to move both used and new appliances.

Gold & Co. employed the auction sale successfully to move a large surplus of used ranges and washers which had accumulated since the Korean outbreak and the ensuing wave of new appliance sales.

A few used refrigerators were included in the sale to draw traffic and balance the offering, according to Les Strain, manager of the appliance department, although the refrigerator situation is such in Lincoln that used machines are starting to find a ready market among consumers in the area.

Object of the sale was to reduce used stocks and at the same time break even on trade-ins, Strain pointed out. The auction, which was the first to be held in Lincoln by a major new merchandise retailer, was quite successful in accomplishing that purpose.

A well-known Lincoln auctioneering firm was retained for the event, which was held at night in the store's parking lot. Music over the public address system helped to build the crowd, while two three-column advertisements and several radio spots were employed for two days preceding the sale. All sales were for cash and final, and there was no holding back of merchandise, he declared. All items offered for sale were sold to the highest bidder.

Strain expressed the opinion that stricter credit control will create a greater demand for used appliances. In Lincoln, he said, such controls will eliminate only 10 to 15% of the customers and these will be in the market.

ket for used appliances, particularly refrigerators.

He also noted that sales of new appliances started back to normal in Lincoln in August, after a rather hectic July. He believed that despite allocations and the fact that a number of refrigerator food freezer models right now are either in very low supply or entirely out of stock temporarily, his firm could meet normal appliance requirements for the next 12 months.

Hardy Furniture Co., which carries more major appliance lines than any other dealer in Lincoln, has found it advantageous to discuss the current situation in advertisements, according to Russell Dodds, advertising manager.

The advertisements have stressed that while hoarding is not necessary, "now is a good time to buy things for your home." Four reasons have been emphasized for buying appliances if the customer has need of them in the foreseeable future:

"1. Prices are lower now than they can possibly be for some time to come.

"2. Goods containing metal will be increasingly harder to get—while we do not believe production will be too drastically curtailed, it is certain that such a large and varied selection as we now have will not be obtainable.

"3. Credit regulations are almost certain to be enacted by our government at a very early date. We advise you to come in now and make use of the liberal terms we are still able to offer you—10% down, up to 24 months to pay.

"4. We now have a wider range of selection in all our merchandise than ever before in our history, and probably better than we will for some time to come."

I-H Releases Prices On Freezers, Refrigerators

EVANSVILLE, Ind.—Installed prices on International Harvester refrigerators and home freezers, including prices on new freezer models, have been released by the company recently.

The suggested list prices are as follows:

REFRIGERATORS	
Model U-76	\$199.95
Model H-74	214.95
Model U-87	239.95
Model U-95	259.95
Model H-84	299.95
Model H-92	339.95

FREEZERS	
Model 70 7.0 cu. ft.	\$229.95
Model 111 11.1 cu. ft.	379.75
Model 158 15.8 cu. ft.	459.75

G-E Announces Price Rise On 4 Rotary Ironer Models

BRIDGEPORT, Conn.—Price increases have been made on four General Electric rotary ironers.

The new list prices are: model AR 30, \$54.95, an increase of \$5; AR 50, \$109.95, an increase of \$10; AR 60, \$149.95, an increase of \$10; AR 70, \$179.95, an increase of \$10.

Revco Names 6 Firms To Distribute Home Freezers

CHICAGO—J. H. Rasmussen & Co., manufacturers' sales representative for the midwest area, has announced the appointment of six new distributors to handle the Revco, Inc. line of home freezers.

New distributors are: Henning's, Inc., Wichita, Kan.; Knapp & Spencer, Sioux City, Iowa; Henry W. Miller Co., Omaha, Neb.; Lincoln Equipment Co., St. Paul, Minn.; Illinois Fluorescent Co., De Kalb, Ill.; and Warehouse Sales Co., Aberdeen, S. D.

No More Hot Cases for Chief

CLEARWATER, Fla.—Police Chief George McClamma's request for an air conditioning unit for his office, was approved Aug. 8 by the city commission.

June Appliance Sales Increase In Nashville

NASHVILLE, Tenn.—June sales of refrigerators, home freezers, ranges, and water heaters by Nashville dealers all gained substantially over those of the same month last year, reports issued by the Nashville Electric Service indicated recently.

Sales for the 12 months ending June 30 also showed considerable increases over the 1948-1949 period.

In June, local outlets sold 1,703 refrigerators, 62% more than in June, 1949. They also sold 880 ranges, 64% more than in the same month last year. Water heater sales of 637 units represented a gain of 45% and 51 freezers, a gain of 54%.

For the 12 months period, these outlets sold 12,637 refrigerators and freezers, 7,527 ranges, and 5,623 water heaters. These figures marked a rise of 53% in refrigerator and freezer sales, and 36% in range sales.

COMPARE REFRIGERATORS

Send for extra copies of the 1950 Household Refrigerator Specifications immediately. There is still a limited supply available.

These specifications of household refrigerators, in handy booklet form, provide you with a solid picture and clear perspective of your refrigerator line compared to your competition. Dealers, servicemen, manufacturers, product engineers, and others will find these specifications suggest selling and servicing ideas and new improvements to be used effectively in your own work.

The prices of these specifications are:

1 to 9 copies	50¢ each
10 to 49 copies	35¢ each
50 or more copies ...	20¢ each

Send your order and your check to:

AIR CONDITIONING &
REFRIGERATION NEWS
450 WEST FORT STREET
DETROIT 26, MICHIGAN

Service Firm's Suit Hits 1% State Tax on Both Parts, Labor

INDIANAPOLIS—A suit challenging a 1947 order of the Indiana Department of State Revenue increasing the state gross income tax on some repair services from $\frac{1}{2}\%$ to a full $\frac{1}{2}\%$ was filed recently in the Marion County Circuit Court here.

Companies engaged in repairing household appliances, automotive service work, plumbing, and a wide range of other service fields will be affected by the outcome of the test case.

Filed by Ferdinand Samper, operator of J & R Radio Service, Indianapolis, the suit asked Judge Lloyd D. Claycombe to set aside an assessment of \$32.33 for the years 1946 to 1948.

Institution of the test suit followed a formal denial by the State Revenue Board of Samper's contention he should be allowed to segregate income from labor and materials, taxing the former at $\frac{1}{2}\%$ and the latter at 1%. Where labor and materials are combined in one repair contract, the whole income is taxed at 1%, the board ruled.

Noting that he has been in the radio repair business since 1934, Samper said the department always allowed the segregation of income until the 1947 order. Samper, who studied law nights and was graduated from Indiana Law School last June, is acting as his own attorney in the test action.

He asked the court to review evidence he presented before a special hearing presided over by Vernon J. Dwyer, head of the inheritance tax division, and an appeal hearing to the Revenue Board at which Dwyer also sat as judge. Samper argued that the department erred in naming Dwyer to sit at both hearings.

Samper's suit asserted the tax-increase order is "arbitrary, capricious, and not in accordance with law." He argued that his repair contracts were contracts for "additions to electronic equipment" instead of straight contracts.

In ruling against Samper, the board said a customer orders a radio repaired without knowing what parts he may be buying and, for that reason, the contracts must be considered in their whole. Samper contended, however, that his customers always were told how much they will pay for parts and how much for labor.

Air Conditioning Is Set For New Falcon Mfg. Plant

DALLAS, Tex.—Falcon Mfg. Co., Inc., of Grand Prairie, manufacturer of chrome dinette sets, is erecting a \$350,000 modern plant in the Trinity Industrial District of Dallas.

George A. McNeff, president of the company, said the 234 by 220-ft. steel and masonry building will have 61,480 sq. ft. of air conditioned offices, manufacturing, and warehouse space which will be twice the size of the Grand Prairie manufacturing plant.

Cooling Texas Hotel May Make It 'Biggest' One In Waco Area

WACO, Tex.—According to Manager Dick Riestenberg, a \$250,000 program of air conditioning Waco's Roosevelt hotel throughout will be completed in 30 days.

"When the project is completed, the Hotel Roosevelt, a 252-room jewelery, will be the largest air conditioned building in Waco and the biggest air conditioned hotel between Dallas and Austin," Riestenberg said.

Write for Information about Our 7 FOOT DOUBLE DUTY, SELF-CONTAINED

Economical to buy . . . economical to operate! packed with eye appeal. A completely self-contained unit with a $\frac{1}{2}$ H. P. compressor. Uses only 20 sq. ft. floor space. Provides 20 sq. ft. display area PLUS 10 cu. ft. storage. Has nation-wide acceptance.

Laudon
MINNEAPOLIS
COMMERCIAL REFRIGERATION EQUIPMENT
521 27th Avenue South, Minneapolis, Minn.

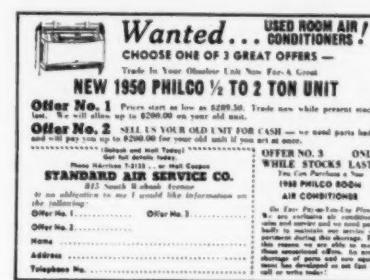
Story In NEWS Gave Him Idea

Air Conditioning Dealer Makes Offer To Accept Used Room Coolers for Cash or as Trade-Ins

CHICAGO—Newspaper advertising offering a "trade-in" proposition on used room air conditioners as a means of promoting the sales of new Philco room coolers brought "fair" results for Standard Air Service Co. here, firm which specializes in merchandising of room air conditioners.

A spell of exceptionally cool weather that coincided with the appearance of the advertising probably hurt the response, declared J. Ruff of the company, who said that the actual sales made had nevertheless more than paid for the cost of the advertising, and that some additional contingent results had been realized.

Ruff said that the idea for this type of advertising was the result of stories appearing in AIR CONDITIONING & REFRIGERATION NEWS on similar types of promotion stunts



Photograph of newspaper advertisement inserted by Standard Air Service Co.

tried on electric refrigerators. Headlined "Wanted... Used Room Air Conditioners!" the advertisement stressed two offers:

"Offer No. 1. Trade In Your Obsolete Unit Now. Prices start as low as

\$289.50. Trade now while present stocks last. We will allow up to \$200 on your old unit.

"Offer No. 2. Sell Us Your Old Unit For Cash—we need parts badly and will pay you up to \$200 for your old unit if you act at once."

The second offer, Ruff said, turned up quite a few offers of merchandise, but many of the propositions had to be rejected because of the age and condition of the equipment. The company got some 1941 units, however.

Of the trade-ins taken in the sale of new conditioners it was said that the trade-in allowance given will be recovered through sale of the units.

"We found that we had to check every unit that was offered," Ruff said, "but generally speaking the owners weren't asking exorbitant allowances for them."

Welch Fans Get '49 Prices Again Because Excise Taxes Were Kept

CINCINNATI—Because excise taxes on electric fans have not been removed as anticipated, the W. W. Welch Co. has announced that its fans have reverted to the 1949 price scale as of Aug. 1, the company announced recently.

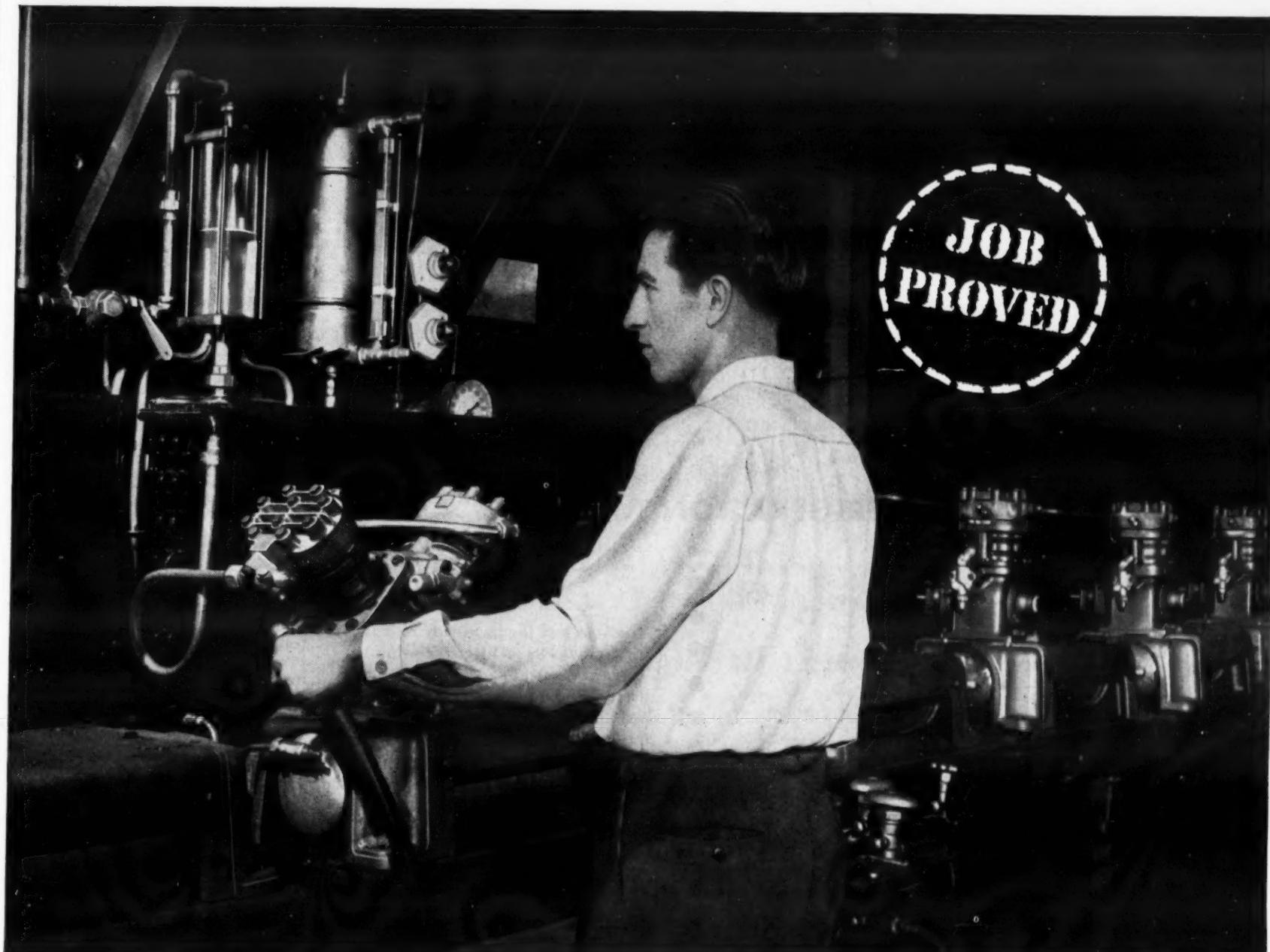
An official explained that the company earlier this year dropped its prices in expectation that the tax would be removed.

Present prices range from \$36.70 for models No. 15 and 20 to \$59.95 for the model No. 24.

Lancaster Equipment Co. Moves

BIRMINGHAM, Ala.—Lancaster Equipment Co., which features "The Smartest Refrigeration Show Room in the South," has moved into its new home at 421 S. 21st St.

The firm handles Hill refrigerated store display equipment and Typhoon air conditioners. Clyde L. Lancaster is president.



ONLY SUNISO...FOR 25 YEARS

Manufacturer Finds Suniso Oils Best Low-Cost Insurance Against Compressor Failures

A large manufacturer of commercial air-conditioning and refrigeration units recently turned down a chance to save money.

Two competitive compressor lubricants were offered to him—at prices slightly lower than Suniso, the refrigeration oil he had been using for the past twenty-five years. But practical tests revealed that both competitive products broke down and formed waxy substances; they simply would not stand up under difficult operating

conditions—would not provide Suniso's extra margin of safety.

The manufacturer naturally kept on using Suniso. A quarter-century of experience had proved to him that Suniso Oils more than made up for their small additional cost by insuring him against compressor failures, service headaches, and customer complaints. No oil but Suniso goes into his units.

Case histories like this explain why Suniso Oils are the predominant choice of original equipment

manufacturers throughout the refrigeration and air-conditioning fields. Suniso Oils, available in six grades, have low pour points, low wax-separation points, and high dielectric strength. They offer unusual resistance to chemical change when mixed with Freon or other modern refrigerants. For a copy of the 52-page illustrated bulletin "Lubrication of Refrigeration and Air-Conditioning Equipment" write Department RN-8.

SUN OIL COMPANY • Philadelphia 3, Pa.
In Canada: Sun Oil Company, Ltd.
Toronto and Montreal

SUNISO REFRIGERATION OILS "JOB PROVED" THROUGHOUT THE INDUSTRY



'Rolling Showroom' Demonstrates Appliances to Those Not Otherwise Contacted

ST. AUGUSTINE, Fla.—Dealers who feel that a "rolling showroom" is too expensive an investment are making a serious mistake, according to G. S. Hough, head of Hough Home Equipment Co., 144 King St., here.

"A rolling showroom, provided it is set up to demonstrate appliances to people who would not look at them otherwise, will probably pay itself off more rapidly than any other operating asset the dealer can depend upon," Hough said.

"We have found, through making our rolling showroom an actual 'rolling laundry' that the truck will repay its cost far more rapidly than the same amount of money invested in store space, in newspaper advertising, or other promotion."

Hough's "rolling showroom" is a 12½-ft. Dodge van truck, which has 462 cu. ft. of space inside. Instead of merely showing a "dead" row of

major appliances, the Hough unit is equipped to actually wash clothing when parked outside a prospect's door. It has a complete butane-gas-powered hot water system and water connections which make it possible to hook up to the homeowner's garden hose.

Inside the all-white truck are a Norge refrigerator and range, two Bendix automatic washers, two gas-fired dryers, wall cabinets, sinks, sewing machine, sit-down ironer, home freezer, and a variety of small appliances. All are connected and ready for actual operation. The refrigerators are full of food, and the laundry units are ready to wash at a moment's notice.

Salesmen follow up requests from homeowners, who have seen the "Phone 1834 for demonstrator" the invitation on the side of the truck, or a weekly newspaper advertise-

ment which announces that it will be in a specific area.

Driving up to the doorstep, the salesman finds out first what the customer needs most, asks her to put through her own wash, or to try cooking on an electric range. Or he explains home freezer operation, as the case might be.

The truck is equipped with a water system, operated by a 35-lb. butane-gas system, as well as an electrical control panel. Water is piped in from the homeowner's garden hose, and electrical current from the house electrical system.

The salesman volunteers to pay the homeowner for the consumption of water and electricity, but only "one in a thousand" will accept it, it has been found.

Letting the housewife do her own laundry and get out her own pots and pans to cook, has proven "irre-

sistible" in making additional sales, Hough has found.

Invariably, when on call at a prospects home, the truck will attract a dozen or more additional women, all of whom want to try this and try that, with the result that one call has been responsible for the sale of as many as eight appliances within a week following.

"We sell refrigerators and automatic laundry equipment at about the same level," it was pointed out. "Probably because the automatic laundry equipment is the most unusual, it always receives the greatest amount of interest."

The truck, which is washed daily, and kept waxed to perfection, was custom-built for the company by a local body-builder. With gold lettering and trade-marks on both sides, the truck is a "rolling billboard."

Moving from its quarters at 211 S. Illinois St. on July 31, Peaslee-Gaulbert is now located in a new building at 1401 Stadium Dr. in Indianapolis. The building provides more than 7,000 sq. ft. of ultra-modern display space for major appliances and home furnishings plus approximately 30,000 sq. ft. of warehouse area on a single-story building plan.

Under a multiple management plan, Harley T. Litteral is manager of the appliance division and Malcolm H. Foster is manager of the floor covering and home furnishings section.

Admiral Corp. Appoints New Mexico Distributor

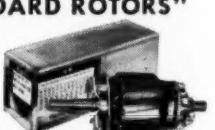
CHICAGO—Cunningham Distributors, Inc., Albuquerque, have been officially named distributor of Admiral Corp. covering 21 counties in northern New Mexico, Wallace C. Johnson, Admiral vice president in charge of sales announced.

Although the firm has been handling Admiral products since last April, Johnson said, the final distributor setup has just been completed.

President of the new concern, Admiral's first New Mexico distributorship, is James E. Cunningham, a veteran of 22 years' experience in the appliance business.

Immediately prior to establishing his own concern, Cunningham was for the past five years affiliated in a sales capacity with Appliance Distributors, Admiral's Chicago factory branch. Before that he represented other companies in appliance sales.

Genuine Joe says... "Stock WAGNER STANDARD ROTORS"

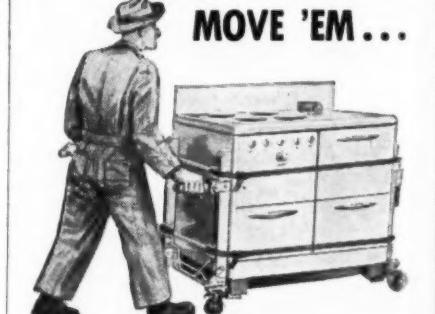


A stock of genuine Wagner interchangeable replacement armatures makes rotor replacement a simple 1-2-3 job... and the exclusive "tell-all" label shows the interchangeability of rotors within a given horsepower on Wagner motors.

MS 49-7

Wagner Electric Corporation

6471 PLYMOUTH AVENUE, SAINT LOUIS 14, MO., U.S.A.



Easily, Safely, Quickly with

ROLL-OR-KARI DUAL TRUCKS

Handling stoves, refrigerators, freezers and other heavy, awkward loads is a cinch with Roll-Or-Kari Dual Trucks. Adjustable to any size load, Roll-Or-Kari Trucks with the patented Step-On-Lift and Web Lock and Tightener are easy to attach and easy to roll. Foot lever on each truck raises truck to rolling position. Folding handles. Capacity 1,000 lbs. Shipping weight 40 lbs.

Be thrifty in 'Fifty—Roll-Or-Kari Dual Trucks are your insurance against time losses and breakage losses. Write today for full information. Dept. A.

ROLL-OR-KARI CO.
MANUFACTURERS
ZUMBROTA - MINN.

Horne-Wilson, Inc. Occupies New Air Conditioned Quarters

Horne-Wilson, Inc. Occupies New Air Conditioned Quarters

JACKSONVILLE, Fla.—Horne-Wilson, Inc., wholesaler of air conditioning, heating, and plumbing equipment, and household appliances, has occupied its new building at Forsyth and Madison Sts.

Homer W. Miller is manager of the firm's Jacksonville branch, which maintains home offices in Atlanta.

The new structure here contains more than 40,000 sq. ft. of floor space. Offices and showrooms are air conditioned.

Free Appliance Salesmen: Chicago Utility Offers To Provide Them for Dealers In Effort To Promote Sales of Ranges, Water Heaters

CHICAGO—How would you like to have a salesman on your staff who would sell electric ranges and water heaters for you and accept no commission on the sales?

That is the proposition that has been placed before Chicago appliance dealers for the past eight months. A growing number of them are taking advantage of it.

The proposition was made by the Commonwealth Edison Co. here in an effort to increase the sales of

these appliances. The activity, to which the utility has assigned a crew of 25 trained salesmen, has proved to be a practical approach to this objective and is looked upon by utility officials as a long term promotion of major appliances.

DETAILS OF OFFER

Here is the proposition as the utility made it to the city's dealers:

1. The utility's dealer sales promotion department representative takes

one of its own lead-closing salesmen to the dealer's place of business so that he can become acquainted with the dealer and get information about the brands the dealer handles.

2. The dealer turns over his leads on these two appliances to the dealer sales promotion department of the utility, either by telephone or by giving them to the department representative.

3. All leads turned in by the dealer are acknowledged and registered in his name. The lead is turned over to the salesman who represents the dealer with the prospect. The salesman sells at the dealer's price and on his terms. Sales, and any money collected, are turned over to the dealer by the salesman.

4. When a lead is registered, the salesman will work in the dealer's interest only for a period of 90 days, reporting periodically on his progress. If the lead still has possibility of closing after 90 days, it may be renewed for another 90 days.

DEALERS ARE PROTECTED

If another dealer offers this same prospect during these periods he will be informed of the prior lead. Similarly, if the dealer turns in a lead which has been previously registered, he will be so informed immediately.

5. If prospects for appliances other than ranges or water heaters develop as a result of the salesman's call, he will try to close the sale for the dealer. If unsuccessful, he will notify the dealer of the customer's interest.

6. If the utility salesman develops a lead for an electric water heater from the purchase of an electric range resulting from the dealer's lead, or vice versa, during a minimum period of 90 days, a lead for the second appliance will be registered in the dealer's name under the same conditions as the first lead.

The salesmen are compensated solely by the utility, which pays them a salary and commission. These salesmen were selected principally from employees of the utility doing other sales work who had the qualifications and aptitude for specialized dealer selling, W. H. Bromage of the utility explained.

New Orleans Merchants Assn. Forms Furniture, Appliance Div.

NEW ORLEANS—The newly formed furniture and appliance division of the Retail Merchants Association here has elected A. B. Kupperman as its chairman. Kupperman is president of two local department stores—Joy's Inc., and Levitan's—and is president of the New Orleans Retail Furniture Dealers Association.

REVERE COPPER AND BRASS INCORPORATED

Founded by Paul Revere in 1801
230 Park Avenue, New York 17, New York

Mills: Baltimore, Md.; Chicago and Clinton, Ill.; Detroit, Mich.; Los Angeles and Riverside, Calif.; New Bedford, Mass.; Rome, N. Y.
Sales Offices in Principal Cities,
Distributors Everywhere

"KNOW HOW"
MAKE CTI GRADUATES THE MEN FOR THE BETTER JOBS

PRACTICAL SHOP TRAINING IN
AIR CONDITIONING — REFRIGERATION
FROZEN FOODS LOCKERS

ELECTRICITY — MAJOR APPLIANCES
SERVICE, MAINTENANCE & INSTALLATION

Use CTI Placement Service or write for
Enrollment Details

COMMERCIAL TRADES INSTITUTE

200 SOUTH 20TH ST., BIRMINGHAM, ALA.

MEMBER:
Southern Association of Private Trade Schools

An approved school to TRAIN Veterans
and Non-Veterans

Training in the heart of the South . . .

Non-Perforated Polyethylene Bags Rate Highest In Retaining Quality of Produce

Pre-Packaging Tests Show Food Loses Less Weight

COUNCIL BLUFFS, Iowa—How much shelf life may be expected for pre-packaged produce under enclosed refrigerated display, or self-service open type cases, has been determined recently by a series of tests. Experiments have been conducted on 46 items by Howard Mfg. Corp., polyethylene packaging materials converters here.

The company, which supplies polyethylene wraps for many large-scale produce and meat pre-packagers in the middlewest, has carried out exhaustive tests on various types of packaging materials, perforated and non-perforated bags, and wrappers in order to advise its pre-packaging materials customers which wrap will give the best service in everyday use, under refrigerated or non-refrigerated display.

The tests, which have been under constant operation for the past year, covered 290 operations on 46 items, comprising 25 vegetables, 16 fruits, and 5 delicatessen items.

Tests show that produce with some form of protective wrap loses far less weight than that with no protection, according to Howard. Tests have also revealed that the use of refrigeration, coupled with either perforated or non-perforated bags, can increase tremendously the weight retention of the vegetable and, of course, its sales value.

Tests which have been completed to date, have been made with perforated and non-perforated polyethylene packages, locker paper, mesh bags, and other packaging materials. A sharp distinction has been made between locally-grown and shipped-in produce, and tests made under refrigeration and at room temperatures.

All of the tests using refrigeration were carried out in a large walk-in refrigerator, capable of maintaining temperatures within 2° from 20° to 50° F. Most of the tests, however, have been made at 38° or 40° when experimenting with refrigerated storage, while a refrigerated open self-service case was used for testing packages on display.

One of the conclusions reached by the Howard test is that refrigerated display and storage results are almost the same, the produce involved showing the same amount of shrinkage.

A typical example of the Howard testing procedure is a 26-day test made on tomatoes. Under this test, three groups of two firm, bright red, fresh tomatoes were tested under refrigeration. One pair was packed in non-perforated polyethylene, one in perforated polyethylene which allows the package to "breathe," and one unpackaged. The three pairs were placed side-by-side under 38° F. temperature, and daily notes taken on deterioration and the loss of weight.

At the end of 26 days, the weight loss for the unprotected tomatoes was 16%. They also showed water-filled dimples and bad spots which appeared within 13 days. Tomatoes packaged in perforated polyethylene bags lost 3.58% weight, and also showed a combination of spots and dimples, and an unattractive general appearance within 14 days. In the unperforated film package, the tomatoes deteriorated only slightly.

In another test, the Iowa plastic packaging firm discovered that there

by eliminating losses from loosened and cracked flare nuts

FROST-TITE
pulls up
greater
profits

In Frost-Tite flare nuts, forged frost-relief slots provide relief for expanding ice within the nut, and thus no force is created to cause loosening, splitting, or cracking. Cost no more than ordinary flare nuts—are ideal for use anywhere in the system.

AT LEADING WHOLESAVERS EVERYWHERE.
Literature and prices on request.

REMCO INCORPORATED
ZELIENOPLE, PA.

Guide Lists 200 Commercial Electric Kitchen Appliances

MADISON, Wis.—A buyers' guide titled the "Fact Book of Commercial Electric Kitchen Equipment" is now being distributed by electric utilities throughout the country to restaurant and food service operators.

Designed to promote electric kitchen equipment to restaurateurs, the book lists over 200 electrically-heated or operated kitchen appliances represented by almost 100 manufacturers. The equipment is classified in 20 sections.

In its seventh edition, the book is compiled and published by Electrical Information Publications, Inc., 20 N. Carroll St., here.

Each appliance is illustrated, factually and uniformly described, and

complete with price information. As in previous edition, no advertising is carried.

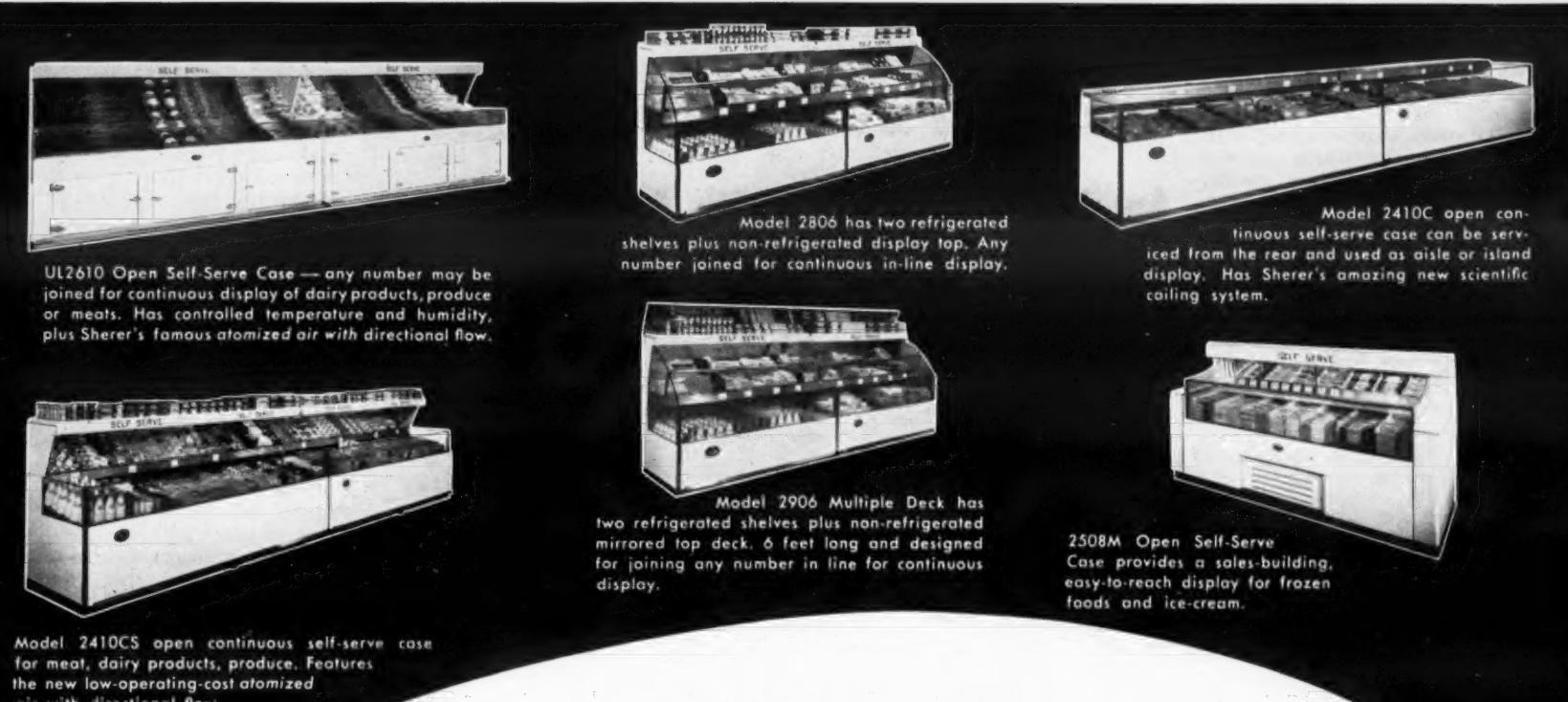
Among the items listed are fry kettles, griddles and grills, steam cookers, toasters, waffle bakers, coffee urns, glass coffee makers, hot-plates, hot food units, ranges, ovens, broilers, silver cleaners, dishwashers, water heaters, glass washers.

Motor devices (including such items as potato peelers, steak tenderizers, meat choppers, patty molders, vegetable cutters and slicers, bake shop mixers); fountain equipment (including drink mixers, multimers, broilers, hot cup service stations, soup heaters, chocolate urns, minute barbecue equipment, water heaters for tea and hot chocolate,

counter-top ice cream freezer); and miscellaneous appliances such as egg boilers, hot dog steamers and bun warmers, meat slicers, cup and saucer dispenser, coffee measuring, grinding, and dispensing machine; fat filter, plate dispensers, and double-boiler type counter cooker.

Good News for Saudi Arabians

JIDDA, Saudi Arabia—Purchase and storage of meats, vegetables, and other foodstuffs heretofore little known in this hot and arid country is now possible with the opening of a new cold-storage plant here. A second plant is under construction north of the city.



that **CUTS** your customer's costs and **BUILDS** extra profits for you

Here is a new refrigeration idea that is hotter than a firecracker . . . that offers new sales possibilities and new profits for you. The new Sherer line of open self-service display cases gives your customers unheard of economies. They maintain perfect temperatures using only a $\frac{1}{2}$ H.P. condensing unit. Look at the sales advantages this gives you.

NEW SAVINGS IN H.P. REQUIREMENTS

A new scientific cooling system* controls and regulates the air flow through the case to eliminate spillage. Cooled air is recirculated without loss. Constant food-preserving temperatures are now maintained with a $\frac{1}{2}$ H.P. Condensing Unit (in a 90° room) instead of usual $\frac{1}{4}$ to $\frac{1}{2}$ H.P. Unit. This means savings in initial cost and savings in electricity up to 30%.

LESS RUNNING TIME

Even with a $\frac{1}{2}$ H.P. condensing unit, far less running time is necessary to operate Sherer cases with this amazing new coil-

is FIRST AGAIN with a NEW refrigeration method

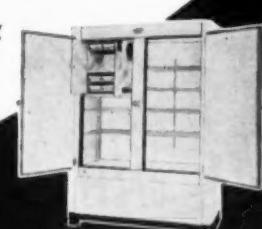
ing system thereby effecting additional savings in electrical costs and less machine wear.

ATOMIZED AIR WITH DIRECTIONAL FLOW ELIMINATES PRODUCT WASTE
Crisp, cold air with proper moisture content is continuously circulated over, under and around all merchandise. This eliminates shrinkage and waste and increases the "buy-me" appeal of the contents.

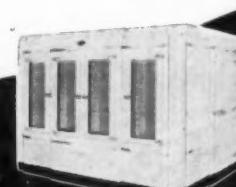
ADD THIS TO THE TIME-TESTED ADVANTAGES OF SHERER CASES

Sherer products have long been known for eye-appealing design, profit-building display and dependable construction. Their inherent quality helps to build dealer reputations. They have a competitive price and a profit-making mark-up. That's why it pays to be a Sherer Dealer.

Investigate the important money-making features of the COMPLETE Sherer line.



30-21M Refrigerator has ice-maker coil with 192 cu. ft. capacity. Zero storage up to 60 lbs. of frozen foods. 11 models from 20 cu. ft. to 70 cu. ft. capacity.



Walk-in Coolers, porcelain clad or plain, in many sizes.

dealers:

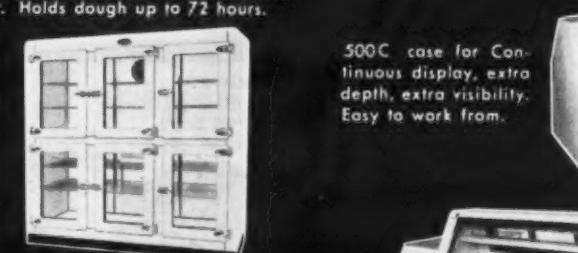
Sherer has the products, the prices, the name and the promotion to make '50 a better year for you.

Send Coupon Today For Complete Information on Available Franchises.

Name _____

Address _____

City _____ State _____



1700M Delicatessen for display of cold meats, baked goods, dairy items and salads—5 ft. and 7 ft. double duty models.



UL2200M Meat Display Case has unique lighting arrangement that spot-lights the entire display area on both shelves. Also available without housing and unit.

SHERER-GILLETT COMPANY MARSHALL, MICHIGAN

Crosley Stages Extensive Promotion to Capitalize On Better Homes Award

BUFFALO—Having won first prize at the Buffalo Better Homes Exposition for its modern kitchen display, Crosley capitalized on this award shortly after by staging an extensive promotion throughout the western New York area on planned kitchens.

A full-page newspaper advertisement was used to launch the event. It included a complete directory of Crosley dealers in the area.

The advertisement carried a large photo of the Crosley kitchen and the caption: "First Prize Winner at the Better Homes Exposition. Now At Your Crosley Dealer."

Copy continued: "Over 75,000 saw it—thousands more heard about it. . . . Now, this dream kitchen is on display at your Crosley dealer, and here's the beauty of it all. You can start to own that 'someday' kitchen right now."

Crosley dealers were equipped with free planning books which showed customers how to establish a simple, practical kitchen by acquiring it step by step.

Niagara Falls Store Opens

NIAGARA FALLS, N. Y.—Floyd and James S'dao have opened a new appliance and furniture store at 1318 Niagara St. The S'dao's have had a combined experience of 36 years with two of the leading appliance outlets in Niagara Falls and now have joined in their own enterprise.

Benefit Programs Make Money Now



Danforth Co., Pittsburgh distributorship, equipped this auditorium for the use of women's clubs, which like to sponsor benefit activities. The free use of the auditorium, plus appliances and maid service afterwards, helps to make the activities more profitable and less bothersome. In return for this service the women are asked to witness a 15-minute demonstration of one of the distributor's appliances.

Auditorium Equipped with Appliances Offered by Distributor for Use of Clubs

PITTSBURGH—A service instituted here by Danforth Co., area appliance distributorship, enables women's clubs to stage their benefit shows in Danforth's auditorium and make money on the affairs.

The plan has proved so appealing

that women's organizations find it necessary to book the auditorium five months in advance.

The idea was originated after a survey of women's clubs here showed I. W. Danforth that women were more interested in actually trying

out new equipment themselves, than they were merely sitting for an hour, watching a demonstrator.

Danforth invites groups to prepare luncheons in its new auditorium, using company equipment. Mrs. Elizabeth C. Palmer, home service director, presents a 15-minute sales demonstration of one product, daily.

Danforth started the service after women, queried on a survey, said they (1) seldom if ever made much money on their benefits, (2) would rather bring their own food (than buy it prepared) and save money, (3) disliked to carry equipment, (4) liked short sales talks, (5) disliked cleaning up after a benefit because they were dressed up (Danforth has hired a maid to clean up for them).

To insure success of the service, Danforth publicized it widely. The policy was introduced with a press party to which newspaper columnists, radio commentators, and home economists were invited, and publicity was mailed to suburban newspapers. Also, letters were mailed to 375 club presidents in the county.

Danforth's auditorium on the second floor of the company's new building is a combination club-room and auditorium completely equipped with a kitchen-laundry-canning-freezing center. It accommodates 300 persons at meetings, or 200 persons at card tables.

The auditorium has a stage and movie screen at one end, and at the other end, the kitchen unit.

This kitchen has a 10-cu. ft. refrigerator with a freezer chest, electric dishwasher, double-oven range, apartment range, home freezer, laundromat, drier, electric water heater, plus traffic appliances: mixer, sandwich grill, roaster, auto coffee maker, waffle iron, electric griddle.

The service in addition furnishes the clubs with coffee, cooking utensils, chinaware, silverware, etc.

What's more, the Danforth Co. employees' former parking lot now is reserved for women's club use only. All this without charge.

Groups come early, fix rice pudding, bake apples, make sandwiches, gingerbread, cookies, and put them in the refrigerator or home freezer.

Following Mrs. Palmer's 15-minute demonstration of new equipment, clubwomen settle down to an afternoon of bridge, bingo, 500 or canasta. When they're "dummy" in the card games, women stroll over to the model kitchen, examine the equipment.

"This promotion," she says, "gives us a wonderful cross-section of potential customers."

Mayflower-Thor Dispute Goes Back to State Court

PHILADELPHIA—The dispute between Mayflower Industries, Inc., of Newark, N. J., and Thor Corp., over the cancellation of Mayflower's distributor contract with Thor has been referred back to the State Superior Court of New Jersey where it originated.

This action was taken recently by the Third U. S. Circuit Court of Appeals. The Federal court declined jurisdiction over the case.

Thor had had the case transferred from state to Federal jurisdiction because the two companies were "citizens" of different states.

Inasmuch as Mayflower has named Teldisco, Inc., the distributor that Thor had selected to succeed Mayflower, as co-defendant, the Federal court declared that Mayflower and Teldisco were residents of the same state. Therefore, it decided, the case should be settled in the state courts.

The action, it is reported, automatically negates a temporary injunction previously gained by Mayflower in the Federal court to prevent Thor from selling its goods to Mayflower's dealers through other distributors.

Mayflower is seeking damages from Thor for alleged breach of contract. It is also seeking reinstatement as Thor distributor.

Saving 'Small Change'



Smallness of the Westinghouse Add-O-Bank is emphasized by this in-the-hand demonstration.

Westinghouse Bank To Promote Time Sales

MANSFIELD, Ohio—A new meter bank sales plan designed to promote time sales of major appliances and to emphasize ease of payment through small daily savings has been introduced by Westinghouse Electric Appliance Div.

The plan consists of a savings bank that is available with each major appliance sold. Called the "Add-O-Bank," it will take nickles, dimes, and quarters, and registers the amount saved. The smallness of the bank permits it to be placed in any convenient place.

The bank is designed to encourage customers to form a systematic habit of saving small change to help pay the monthly payments on a major appliance.

Dealers have been furnished with a new four-page brochure that describes the meter bank sales plan and gives suggested advertising mats and other promotion aids. The new banks are ordered directly from the supplier.

Douma Will Head Sales For Electric Housewares Div. of Oster Mfg. Co.

RACINE, Wis.—George M. Douma has been named sales manager for the Electric Housewares Division of the John Oster Mfg. Co., it was announced recently. Douma was former sales manager for the Electrical Division of NESCO, Inc.

In making this announcement, John Oster, Jr., executive vice president of the firm, noted that the company has divided its sales management activities into two separate operations with R. F. Maresh as sales manager for the Barber and Beauty Supply Division and the Special Products Division—functions he has performed with the firm for the past 25 years.

Douma had been associated with NESCO for the past six years, and formerly served with the Butler Brothers for more than 10 years handling promotional activities and sales. He originally entered the appliance field as a jobber's salesman in Michigan.

MacDonald Takes Advertising, Sales Promotion Post In Texas

DALLAS—Ewen A. MacDonald has been appointed sales promotion and advertising manager for Capitol Distributors, Inc., of Dallas and Oklahoma City, it was announced here recently. The company is a wholesale distributor for Admiral appliances and Remington air conditioning units in Texas and Oklahoma. MacDonald's headquarters will be in Dallas.

Here's Your New Edition of HARRY ALTER'S DEPENDABOOK No. 153

Illustrates, Describes and Prices* OVER 9,000

REFRIGERATION PARTS and Supplies

* some items up to 60% below regular prices

Write on your letterhead to
The HARRY ALTER Co.
1728 South Michigan Avenue
Chicago 16, Ill.

134 Lafayette Street
New York 13, N.Y.



WOLVERINE TUBE DIVISION
CALUMET AND HECLA CONSOLIDATED COPPER COMPANY
INCORPORATED

MANUFACTURERS OF SEAMLESS HIGH-FERROUS TUBING

1413 CENTRAL AVENUE

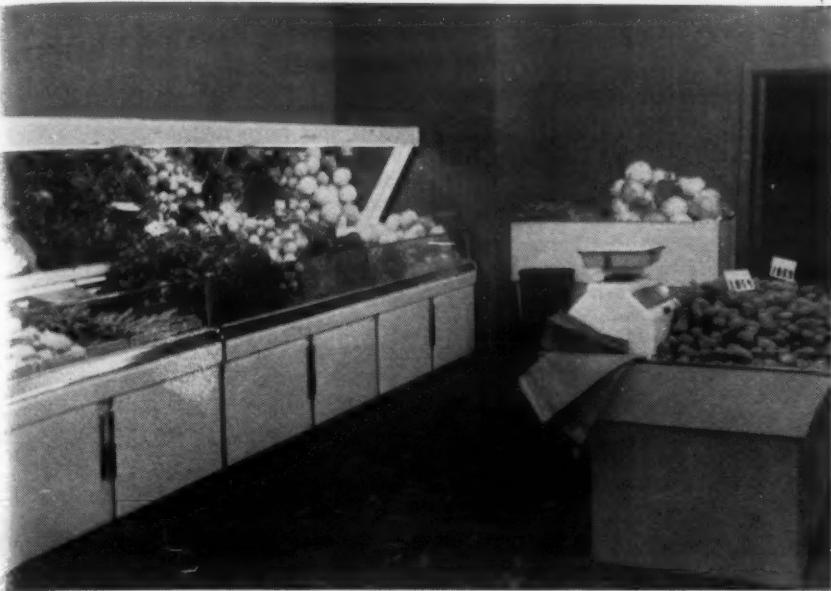
DETROIT 9, MICHIGAN

STOCKS AVAILABLE IN ALL WOLVERINE MILL DEPOTS: DETROIT • DECATUR, ALA. • HOUSTON • LOS ANGELES • LONG ISLAND CITY
PHILADELPHIA • PROVIDENCE • ST. LOUIS



EASIER TO READ! COMPLETELY REVAMPED WITH NEW TYPE FACES
WHOLESALE ONLY

"Service Doesn't Falter When It Comes From Harry Alter"

38° Found To Be Ideal for Produce

Sixty feet of Hussmann continuous produce display cases is given much of the credit for selling an additional \$500 worth of produce each week at the Pork House Supermarket in St. Louis. Holding the items at an even 38° is said to be a chief factor in cutting the spoilage loss from as high as 10% to practically nothing.

* * *

Loss Cut from 10% to Practically Nothing As 3° Higher Temperature Is Carefully Held

ST. LOUIS—Discarding previous methods for handling refrigerated produce, and developing a system whereby little or no reserve stock is kept on hand, and wherein refrigeration is applied at every step in handling, is selling an additional \$500 produce volume per week for the Pork House Supermarket here.

Major factor in the increased produce sales volume is a 60-ft. Hussmann continuous produce display case, which occupies the entire left wall of the store. Composed of six units, the Hussmann box was built exclusively for produce display, in place of a row of self-service meat cases, which had formerly been pressed into service for this operation.

"We found that the standard dairy case or self-service meat case was too cold for successful produce display," Raymond Becker, produce manager for the big supermarket, indicated. "Most such cases operated at 35° F., which we found a little too cold for most produce items. While the vegetables would stay attractive on dis-

play for an equal length of time, they would break down more rapidly, when thawed, and this resulted in more spoilage and customer disappointment."

The big Hussmann case, on the other hand, operates at 38°, with a dial thermometer in each unit, which relays this fact to the shopper. With a carefully controlled 38° temperature, it has been found, spoilage which often amounted to between 6% and 10% with other methods has been cut to practically nothing.

Helping substantially to maintain the no-spoilage record, is the fact that 90% of the produce sold off the rack is delivered directly to the rack from refrigerated trucks. An electric conveyor carries the produce direct from the store's rear entrance, and the Pork House Supermarket deals exclusively with suppliers who guarantee refrigerated van delivery.

What remaining vegetables must be held in the supermarket, or store overnight, are placed in a 12 by 8-ft. walk-in refrigerator, lined with stainless steel.

Kiernan Gets Panelyte Refrigeration Parts Post

NEW YORK CITY—Vincent L. Kiernan has been appointed sales manager for refrigeration and injection molded parts produced by the Panelyte Div. of St. Regis Paper Co., according to C. Russell Mahaney, vice president of St. Regis and general manager of the division.

Mahaney also announced the appointment of John M. Zeier to succeed Kiernan as New York district sales manager for the division.

Kiernan joined Panelyte in 1927 and since 1941 has occupied the position of New York district sales manager.

With Every ICE MAKER... Use Filtrine HIGH EFFICIENCY

SAVE SERVICE — remove TASTES, SOLIDS

FILTRINE MANUFACTURING COMPANY Brooklyn 5 • New York

'1896 House' Guests Line Up for an Hour For Frozen Turkey

WILLIAMSTOWN, Mass.—Guests of "The 1896 House," popular dining spot that attracts gourmets from points 100 miles distant, frequently have to wait an hour or more to be seated, but from then on they can be quickly served if they follow the management's suggestion by ordering a frozen Turkey Villeroy dinner, specialty of the house.

Now being distributed by the management in New York City and Boston too, Turkey Villeroy comes in a box containing four large pieces of frozen boned turkey—two pieces of dark meat and two of white—covered with a thick cream sauce made with diced ham, cheese, and spices, a breading, and deep-fat frying. Also in the box are three 2-in. blocks of frozen paprika sauce.

The turkey doesn't have to be defrosted first, merely placed in a hot oven for 25 minutes. The paprika sauce is heated in the meantime.

Chattanooga Baptists Cooled

CHATTANOOGA, Tenn.—The First Baptist Church here has completed installation of an air conditioning system.

NEED COLD PLATES? Call DEAN!!!

For ice cream cabinets, locker plants, soda fountains, farm milk coolers, farm freeze cabinets, low temperature test rooms, window displays, liquid coolers. Also plates for boudoir-type coolers. Custom built plates available on special order such as cylinders, U's, angles, tanks, etc. Plates available in stainless steel and other metals.

SEND FOR TECHNICAL DATA BOOK

DEAN PRODUCTS, INC.
1042 DEAN ST., BROOKLYN, N.Y.

**Europe's Frozen Food Industry's Growing, Says Marshall Plan Visitor**

BRIDGETON, N.J.—The frozen food industry is growing at a rapid pace in Europe and is already well developed in Holland, according to Professor Svend Anderson of Copenhagen, Denmark.

He is one of 54 technical specialists from Marshall Plan countries in Europe who are making an eight-week study sponsored by the ECA and designed to help increase food productivity and food handling efficiency in western Europe.

The group recently toured the huge Seabrook Farms food processing, storage, and transportation enterprises here.

Anderson said Europe needs specialized machinery which can be adapted to its smaller-scale industries.

Sweden is now consuming around 10,000 tons of frozen foods annually, a representative from that country said. This compares with the 20,000-ton capacity of a single storage room at the Seabrook plant.

Madden Sells Delavan Nozzles In New England Territory

DES MOINES, Iowa—Delavan Mfg. Co. has announced the appointment of John J. Madden, 212 Madison St., Dedham, Mass., as sales representative in the New England territory on Delavan industrial and air conditioning nozzles and agricultural nozzles and accessories.

Westinghouse, Emerson Raise Prices of Small Motors 10%

DETROIT—A 10% increase in the prices of most of their fractional horsepower motors has been put into effect by Westinghouse Electric Corp. as well as Emerson Electric Mfg. Co.

The price advance by Westinghouse covers the majority of its small motors, while jet pump motors are the only ones exempt from the increase made by Emerson. Rising costs of materials and services made the increases necessary, both companies said.

Costs of materials entering into the construction of motors have advanced rapidly during the last few months and particularly during the past few

weeks, it was pointed out by Emerson.

"Steel and copper prices are at a new peak," the company said. "Zinc and lead have advanced sharply and there is every indication that the price of aluminum will also increase."

"These advances have not only resulted in higher costs of materials which we fabricate ourselves, but are reflected in many of the purchased component parts used in the construction of motors."

"Effective Aug. 1 a new contract was negotiated with our employees which provides for increased wages and pension of \$100 a month."

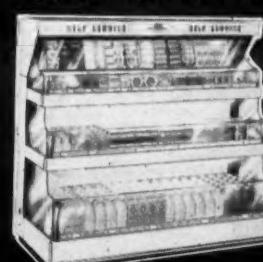
Omaha Bakers Speeding Refrigeration Purchases Due to Crisis in Korea

OMAHA, Neb.—Bakers as well as homeowners have accelerated their buying of refrigeration equipment since the Korean outbreak, reported Henry Hansen, sales manager of the Omaha Bakers Supply Co.

Recent installations by the Omaha firm include two retarded dough refrigerators at the Danish Pastry Shop, operated by C. W. Draper at North Platte, Neb.; a three-section retarded dough refrigerator at the Leola Bakery, operated by Sid J. Swanson, Jr., at Leola, S.D.; and an over-head four-pocket proofer for the Swander Baking Co. which is located at Huron, S.D.



MODEL 1407. Self-service frozen food display case. Attracts and handles more buyers, invites more sales.



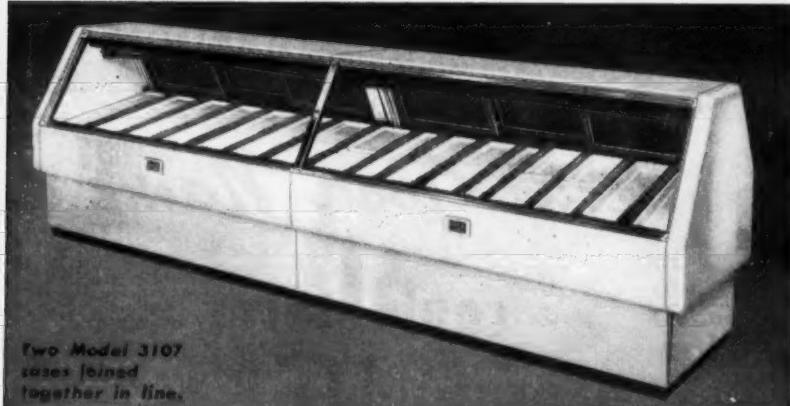
MODEL 306. The sensational open front case with THREE refrigerated shelves. For profit-making impulse sales.



MODEL 6710. 10-ft. long open front case with extra wide display shelf. Ideal for produce display.



MODEL 5710. Open front self-service case for pre-packaged fresh meats, produce, or dairy products.



Two Model 3107 cases joined together in line.

**ENDLESS DISPLAY
ENDLESS APPEAL
ENDLESS PROFITS**

Set 'em up and start selling! KOCH Series 3100 top display cases come in basic 7-ft. and 10-ft. units. May be set up in any length, to provide an integral, unified, money-making display. Just note these incomparable features:

QUALITY Full porcelain enamel front, top, rear, ends, and interior walls. All steel, welded construction. Stainless steel floor. Hermetically sealed, triple plate glass front. Fibre glass insulation.

APPEAL Triple-glazed Loxit type sliding doors in molded hard rubber frames. Continuous K-Beam fluorescent lighting. Electro-welded steel shelves, adjustable to 3 positions. Fully-lined, non-refrigerated storage section.

LONG LIFE Proven KOCH Miraflex twin-coil cooling system. Insures consistent, trouble-free, economical operation.

ENDLESS**SALES****POWER**

KOCH
REFRIGERATORS

SINCE 1883

NORTH KANSAS CITY 16, MO.

KOCH REFRIGERATORS

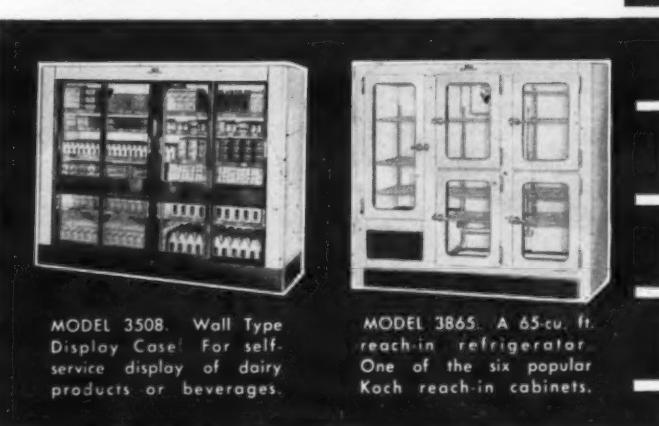
North Kansas City 16, Mo.

Please send me at once, without obligation, complete information on profit-making Koch Display Cases and Refrigerators.

NAME _____

ADDRESS _____

CITY _____ ZONE _____ STATE _____



MODEL 3508. Wall Type Display Case For self-service display of dairy products or beverages.

MODEL 3865. A 65-cu. ft. reach-in refrigerator One of the six popular Koch reach-in cabinets.

RN-17

INSIDE DOPE

by GEORGE F. TAUBENECK

(Concluded from Page 1, Column 1)

When job-incomes are guaranteed by the State, those jobs and their expected output must be fulfilled, day-in and day-out. Sickness or loafing can't be countenanced, else the State's Plan would get out-of-kilter. Putting it in long-hair words:

When incomes are guaranteed by government, stipulated output must be guaranteed, too.

If the State has decreed that its coal mines must produce X tons of coal during the year, the miners must dig that amount . . . or else. If the miners don't meet their quota, unemployed poets and painters, boys hoping to become professional football players, and out-of-work textile weavers will be re-directed into the coal mines. They will have no choice of occupation. The goal must be achieved—and nuts to personal aspirations or predilections.

Trouble with this Over-all Job Planning is that it breaks down in the execution. Those who hate their jobs will be a drag on production. Few workers are likely to extend themselves on an assigned job unless it's demonstrated to them that they can advance their standing, their reputations, and their incomes by doing it well. (Which, of course, they can't; because the Union insists that all members receive identical wages.)

Lacking that understanding of ultimate selfish purpose, they won't do their best unless they're forced to by threats of banishment and brutality.

In Russia, men are herded into unwelcome jobs against their will by fear of deportation to Siberia, or even by threats of liquidation.

Under what other System but State Planning would compulsory resignation to assigned jobs be possible?

Over-all Job Planning is the military method of organizing work and allocating duties. Were you a dentist in private life? Fine. You're assigned to the Adjutant in Charge of Latrines. Are you strong and muscular? Good. Here's your typewriter, and your filing-case. Are you an expert on European affairs? Just what we need. Catch the next plane for Indo-China.

Ill-assorted army inductees do have security, of a sort. But do they enjoy it? Just ask most of them!

The Old Army Game

When universal military training is imposed upon a generation, there are some youths who welcome it. They are in the minority, of course, these Mama's Boys, but they're happy to be relieved of all obligations.

When this feed-me-Mama attitude characterizes a nation—as it did in ancient Sparta and modern Germany—that nation's flame is snuffed out fast. When a nation's youth submerges its yearnings for freedom of action to a militaristic "norm," that nation's demise is not far away. And when army enlistees are guaranteed "security," along with civil servants and union members, all other seg-

ments of the population become more insecure and uneasy than ever.

Most important: if a militaristic Government overcompensates for normal insecurity by protecting certain panels of Mama's Boys, the Area of Enterprise is diminished for all take-a-chancers. Inasmuch as that Enterprise Area is where the taxes come from, insecurity for the nation-at-large snowballs.

In the business world, union-guaranteed wages and cartel-protected dividends preclude newcomers from getting a toe-hold in any occupation. The "outs" can't budge the "ins" when government assists in preserving a monopoly of any description.

"The "closed shop" and "fair trade laws" are equally culpable in this respect. Both types of legal exclusion and extortion protect the income of "insiders" while throttling the chances of "outsiders."

Whenever nationalists try to upset economic laws by giving "security" to certain segments of the population, they make earning-a-living more precarious for the left-out segments, and they lengthen the differences between the political nepotists and the "common people."

It always works out that way, under any type of regime. India, where a government clerkship is the highest rank, and where the "untouchables" substitute personally for sewers, is a case in point.

As the Twig Is Bent

Our sons and daughters are inundated by this godless nihilistic philosophy of "security at any price"

today. Their teachers condemn ambition. Profits, hard work, chancetaking and employing are all under a cloud.

"Gold-bricking—the old Army game" perches atop the pedestal of "social consciousness." Amazingly, loafing and cheating now seem to be a manifestation of "liberalism."

Horatio Alger has been dead too long. Schoolchildren, instead of being inspired with the Will to Win, have been taught to disregard and disrespect all the tested recipes for advancement, service, progress, and possible opulence which their grandparents learned the "hard way."

Safety and security are the watchwords today, rather than opportunity and zest-for-living.

This being so, are we oldsters justified in trying to re-educate our erring progeny? Do they deserve either security or freedom?

Of course they do!

That's what this essay is all about.

To paraphrase the Bible: "The Truth shall make them free!"

dictators are. There's nothing super-human about a majority.

The Main Track Is A Free Market

If we are to rescue our offspring from the zany delusions which they lap up like vitaminized chocolate milk, we should demonstrate that the maintenance of free markets will give them their best chance to "break in" to the charmed circle of Top Dogs. We must show them how they can rise to the top of the heap through freedom-to-do-and-dare.

We must clarify this Truth:

Free markets liberate individuals, and deify them. In a free market, the customer is always right. What he wants, and is willing to pay for, automatically balances production, supply, employment, and capital investment.

"Balance" of all these factors is the real security for everyone. Government interference with demand-and-supply upsets all calculations. When Planners interrupt, one imbalance leads to another until chaos reigns and—always—war ensues.

When the natural law of supply-and-demand is allowed to take its course, everyone cooperates in giving, receiving, and working together. That's when the so-called "little people" are truly the rulers. They rise to the occasion, and they live sumptuously.

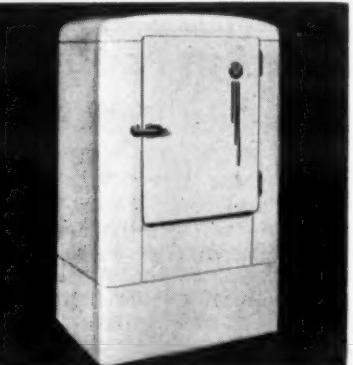
Cooperative division of labor and responsibilities are fulfilled only when contracts are honored, property respected, and toil and imagination rewarded.

Seldom are these concomitants signalized. But when they are, YOU become the boss, and governments intervene only to prevent internecine fights, or to adjudicate border-line arguments.

PEACE is a prime requisite of the free market. Wars, quarrels, and fights interrupt the trader and the producer in their missions of satisfying human desires.

Peace and freedom are inseparable and often indistinguishable. Together, they direct the Pursuit of Happiness onto the main track.

Count these BENBAR features! They add up to MORE SALES!



- Hermetically sealed condensing unit
- Panelyte covered door jambs—Frost breaking lock
- Trouble free capillary system
- Two step door construction
- 4" fiberglass insulation

Sell the kind of freezer that all America is demanding. 2 standard sizes—14 and 17 cu. ft.

DISTRIBUTORSHIPS NOW AVAILABLE

Write for full information regarding opportunities.

AUGUST G. BARKOW MANUFACTURING CO.

2230 S. 43rd St., Milwaukee 15, Wis.

AIR CONDITIONING ENGINEER:

A leading mid-west manufacturer, not now in the air conditioning field, needs an engineer, experienced and now working on $\frac{1}{2}$ h.p. and $\frac{3}{4}$ h.p. window air conditioning units, to be in charge of their new air conditioning design department. Must be capable of designing window units complete exclusive of compressor. Must have a man with executive ability that understands the engineering and application of air conditioning units. Write stating experience, education, references and remuneration expected. Our employees know of this ad.

Reply Box 3551, Air Conditioning & Refrigeration News.



AIR CONDITIONING & REFRIGERATION NEWS, AUGUST 21, 1950

Lacking that understanding of ultimate selfish purpose, they won't do their best unless they're forced to by threats of banishment and brutality.

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To paraphrase the Bible: "The Truth shall make them free!"

Back to the Main Track

Somehow, the trains of our economic and political philosophy have been diverted from the main right-of-way. Engines and box-cars are stalled on weed-infested side tracks. Dispatchers are somewhere else-away fishing, perhaps. And superintendents are bogged down by details.

Our economic transportation system is gummed up badly. It's high time we put all trains back on the right track.

What's happened to us is akin to what would happen to a railroad system if the engineers of all trains stopped anywhere, anytime, to pick pretty flowers, to help a lissome dairymaid with her milking, to take aboard a load of tramps, or to gossip with a nice old lady.

Everyone of these stops would be "socially purposeful," but the daily New York-to-Chicago train would never get beyond Schenectady or Altoona if every "socially purposeful" sidetrack were explored.

Life would be a song, indeed, if nobody had to bother with work, if all sickness were eradicated, if wives and mothers-in-law never criticized a husband for liking his beer, and if we all stopped to sympathize with those who wear grudges on their lapels.

But one must adjust oneself to things as they are, not as things which wishful dreaming might imagine they should be.

Our eager-to-make-the-world-better sons and daughters are easily sidetracked by Utopian schemes. Day-dreaming substitutes for the inexorability of the calendar and the market place in their sheltered lives. It's all too easy for them to believe that through Planning the outrages of comparative poverty, flagrant riches, bad accidents, and even wars can be removed from the Earth.

But, we would point out to them, Planning is a fairy tale. It comes to life only in the obsessed minds of synthetic artificers.

Planning, which starts out to eliminate or ameliorate small miseries, isn't super-human. As a matter of fact, it's usually sub-human; because the worst miseries in recorded history are the large miseries which have befallen hapless, helpless millions when state "planners" either guessed wrong or enjoyed their arbitrary powers too much and for too long a period.

Even so-called "democratic planning" leads to mass miseries. Majorities can be as wrong as



AIR CONDITIONING & REFRIGERATION NEWS, AUGUST 21, 1950

Lacking that understanding of ultimate selfish purpose, they won't do their best unless they're forced to by threats of banishment and brutality.

In Russia, men are herded into unwelcome jobs against their will by fear of deportation to Siberia, or even by threats of liquidation.

Under what other System but State Planning would compulsory resignation to assigned jobs be possible?

Over-all Job Planning is the military method of organizing work and allocating duties. Were you a dentist in private life? Fine. You're assigned to the Adjutant in Charge of Latrines. Are you strong and muscular? Good. Here's your typewriter, and your filing-case. Are you an expert on European affairs? Just what we need. Catch the next plane for Indo-China.

Ill-assorted army inductees do have security, of a sort. But do they enjoy it? Just ask most of them!

The Old Army Game

When universal military training is imposed upon a generation, there are some youths who welcome it. They are in the minority, of course, these Mama's Boys, but they're happy to be relieved of all obligations.

When this feed-me-Mama attitude characterizes a nation—as it did in ancient Sparta and modern Germany—that nation's flame is snuffed out fast. When a nation's youth submerges its yearnings for freedom of action to a militaristic "norm," that nation's demise is not far away. And when army enlistees are guaranteed "security," along with civil servants and union members, all other seg-

ments of the population become more insecure and uneasy than ever.

Most important: if a militaristic Government overcompensates for normal insecurity by protecting certain panels of Mama's Boys, the Area of Enterprise is diminished for all take-a-chancers. Inasmuch as that Enterprise Area is where the taxes come from, insecurity for the nation-at-large snowballs.

"Gold-bricking—the old Army game" perches atop the pedestal of "social consciousness." Amazingly, loafing and cheating now seem to be a manifestation of "liberalism."

Horatio Alger has been dead too long. Schoolchildren, instead of being inspired with the Will to Win, have been taught to disregard and disrespect all the tested recipes for advancement, service, progress, and possible opulence which their grandparents learned the "hard way."

Safety and security are the watchwords today, rather than opportunity and zest-for-living.

This being so, are we oldsters justified in trying to re-educate our erring progeny? Do they deserve either security or freedom?

Of course they do!

That's what this essay is all about.

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The Sale of Furs Is a Hot Weather Business

Note air conditioning outlets at rear of Samuel Glass Shop, Philadelphia furrier. Ducts run from unit installed in workroom. Cool atmosphere in shop is termed a necessity since customer's selection of fur piece generally takes considerable time. Thus if it's too warm in the shop, patrons may not bother to look over much of the merchandise.



Photo shows air conditioner in rear workroom at Samuel Glass Shop. Lack of ventilation in this area plus high heat load from strong lighting needed to match furs properly had made working conditions uncomfortable for furriers. Air conditioning solved that problem, too.

Heat Waves During Summertime Selling Season Have No Effect on Phila. Furrier's Sales After He Installs Air Conditioning

PHILADELPHIA — Installation of an air conditioning unit in the Samuel Glass Shop, furrier here, has resulted in more sales during the hot weather season and better working conditions.

Summer is one of the best seasons for fur sales and it is the best period to start remodeling jobs so that coats will be completed in time for the fall season.

Customers as well as retailers are plagued by the heat which keeps them from spending the necessary time in a furrier's shop to make a purchase or to have coats remodeled. Excessive heat is also the cause of high labor turnover.

When women come into the store to try on coats, they seldom stay long enough to see the large stock available because the heat makes them restless, a spokesman said. Selling furs must be done under the best possible conditions.

Another problem furriers have to contend with is that customers seldom come into the store alone. They nearly always bring someone

with them. It is important to keep those who accompany the customer comfortable, too.

A woman looking at furs is already sold on the idea of buying. While she may be easily pleased, it has been found that it is the friend or relative who finds all the problems, complaints, and makes a sale more difficult. If the other person doesn't want to remain in the store, the customers may leave with him. For this reason, both persons must be made comfortable.

The air conditioning unit at Glass' has helped to keep these customers comfortable while trying on and examining coats. In fact, they are often extremely reluctant to leave the store.

In addition the sales personnel can wear suit coats and make a more presentable appearance while on the sales floor.

Ducts which carry the cooled air have been placed across the rear of the store and supply an even temperature. The unit itself has been placed in an adjacent room which is used for the repair and remodeling area.

Here, too, air conditioning has paid for itself. Furriers working on a time basis took considerable time for refreshments and would walk away from the cutting table and sewing machine because the heat troubled them. Working on furs must be done carefully and a lot of light is needed to see that skins are matched properly. Thus, the extra heat load from the lights made it even more uncomfortable.

Because the workshop is in an enclosed area, there is no outside ventilation and the odor of the furs and the heat combined to reduce production.

With the installation of the air conditioning unit, the furriers spend more time on their jobs and stay later because it is comfortable. The time gained by the furriers is said to be sufficient to pay for the entire installation.

Stores More in Less Space... Cools Faster!

Speed-Freeze

bottle beverage coolers

IDEAL COOLER CORPORATION
2953 EASTON AVE., ST. LOUIS 6, MO.

School Plans Course on Selling Air Conditioning

DETROIT — Departing from the strictly technical aspects of trade-school training, Detroit Air Conditioning Institute will begin a new course on "Selling Air Conditioning" on Sept. 12.

George H. Clark, the institute's director, said the aim of the school is to provide a training for salesmen in vital selling essentials to aid in the marketing of air conditioning, refrigeration, and heating equipment.

The institute's sales training will be related to the technical course so as to allow the salesman to use his engineering skills as a working sales tool.

Instruction will combine classroom and laboratory training. Extensive use will be made of audio-visual aids.

Guest speakers will include sales and engineering executives from all branches of the air conditioning, refrigeration, and heating industry. Regular instructors will be men of the industry with qualifications as salesmen or technicians, or both.

Houston Group Elects E. H. McLane President

HOUSTON, Tex.—E. H. McLane, manager of the Coastal Equipment Co.'s air conditioning and refrigeration sales department, has been elected president of the Air Conditioning Association of Houston.

Other new officers are Elliott Floetter, vice president; K. S. Gregory, secretary; and Ely Scheaffer, treasurer.

demand DETROIT CERTIFIED VALVES and CONTROLS



No. 777
Thermostatic
Expansion
Valve



No. 683
Solenoid
Valve



No. 450 FB3
Pressure
Control

**ONLY DETROIT
BRINGS YOU ALL 3**

**For One Convenient Source
Deal with Authorized
DETROIT Wholesalers!**

DETROIT

LUBRICATOR COMPANY

DETROIT HEATING AND REFRIGERATION
CONTROLS • ENGINE SAFETY CONTROLS •
FLOAT VALVES AND OIL BURNER EQUIPMENT •
DETROIT EXPANSION VALVES AND
REFRIGERATION ACCESSORIES • STATIONARY AND LOCOMOTIVE LUBRICATORS

Serving home and industry AMERICAN-STANDARD • AMERICAN BLOWER • CHURCH SEATS
DETROIT LUBRICATOR • KEWANEE BOILERS • ROSS HEATER • TONAWANDA INN

Recommendation for keeping cold

ANACONDA COPPER Refrigeration TUBE

Packed in individual cartons

"Mirror-smooth" inside

**Moisture-free
Dirt-free Chip-free
Grease-free**

Uniformly soft

Both ends cup-sealed

Accurate O.D. and I.D.

...and for a vibration-free line, use American Vibration Eliminators

See your jobber for ANACONDA Refrigeration Tube and American Vibration Eliminators. Both are products of The American Brass Company, Waterbury 20, Connecticut. In Canada: Anaconda American Brass Ltd., New Toronto, Ontario.

**ANACONDA®
REFRIGERATION TUBES**

For dependability... use



Send for FREE CATALOG on Your Letterhead



Prospect's Big Question About the Home Freezer--

What Will It Do For Me?***--Full Story on Savings Can Lead to Quick Sale***

Designed to answer the prospect's question "What Will a Home Freezer Do for Me?" the home freezer easel-type sales manual developed for Amana Refrigeration, Inc. has another vital function. That function is seeing that the salesman talking to the prospect tells the "whole" freezer story. This it does by developing the step-by-step story as the pages of the manual are flipped over.

In this picture the salesman has come to the part of the selling piece which explains the size

NEW YORK CITY—"What will it do for me?"

The right answers to that question are important in selling anything, but are more than doubly so in sell-

ing home freezers for this one simple reason—well over 99% of the prospective purchasers never owned a freezer before.

Thus it is vital that the selling and sales promotion job of the

of freezer best suited for the prospect's particular family. He points to a chart on the black "floor" on which the freezer stands which shows how much money can be saved if freezer is put to maximum use. On flipped-over back-of-page facing the salesman is a reminder of the model that is being discussed, data on maximum savings, and monthly payments needed to purchase the freezer. Chart on back wall shows when to buy foods to freeze, and the savings possible in various types of foods.

tion of the sales to commercial establishments, but Bergman felt the basic thinking could be applied to the mass of homeowner prospects, because it would answer that all-important question—

"What will it do for me?"

That the formula used has been successful is attested to by the fact that Amana sales this year have broken all records by a considerable margin.

Salesman's Point-by-Point**Story 'Sinks In' Faster**

While the program has embraced all the standard elements—clever promotion pieces, newspaper advertising mats, store literature and wall charts, and a planned home economist demonstration that has served to arouse much interest—the "knock-out punch" that is the answer to the "what will it do for me" is a step-by-step selling manual designed to tell customers the Amana freezer story in simple but forceful terms, and leaving no question unanswered.

The step-by-step selling manual is a double-edged sword, so to speak. It puts across the story to prospects, but also because it makes the salesman go through the step-by-step story over and over, it plants itself firmly on his consciousness!

The manual sits up on the desk easel-style with the pages flipping over on a plastic ring binder at the top.

The manual starts out by showing a typical Amana home freezer family, the MacGregors, two children and two adults, the average size family of four (3.7 according to U. S. Government statistics). This family owns one of the new Amana 12-cu. ft. home freezers that comes in both chest and upright models.

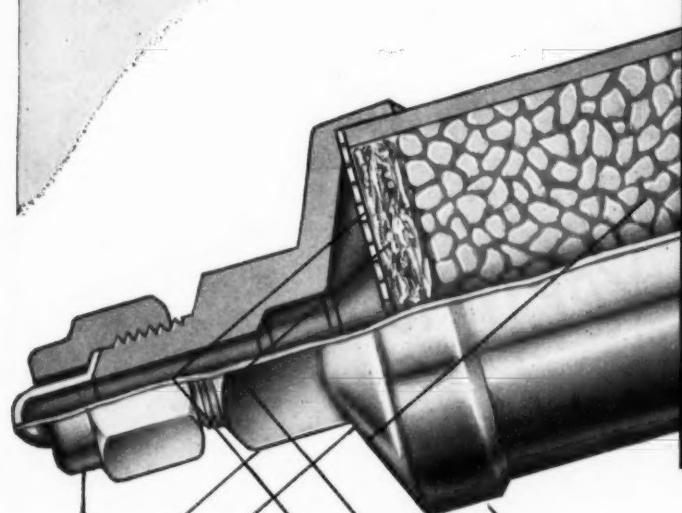
Show Each Member of Family What Freezer Means to Him

In the manual the various members of this typical family tell what the Amana freezer means to them. Mrs. MacGregor tells how she buys fresh fruits and vegetables in quantities in season to store for off season use; how she bakes in quantity and prepares meals in quantity, then packages and stores them in the freezer for future use. She describes how this eliminates wasteful shopping trips and also enables her to plan better meals far ahead.

(Concluded on next page)

2 Cubic Inches Extra**Dehydrant Capacity in this New Type 705 Drier**

**PLUS THESE
Added High
Quality Features**



- 1 All Brass Construction—highly polished.
- 2 Choice of Silica Gel or Dural Drierite.
- 3 Glass Wool Pads provide progressive filtration and spring action on dehydrant.
- 4 40 x 200 mesh outlet screen.
- 5 Forged Brass End Caps with integral flare line connections, silver brazed to shell.
- 6 Wide wrench flats facilitate installation.
- 7 Furnished with flare nuts and seal bonnets.

Listed by Underwriters Laboratories, Inc.

Size connections $\frac{1}{4}$ ", $\frac{3}{8}$ " and $\frac{1}{2}$ " flare—8 to 32 cubic inches capacity.

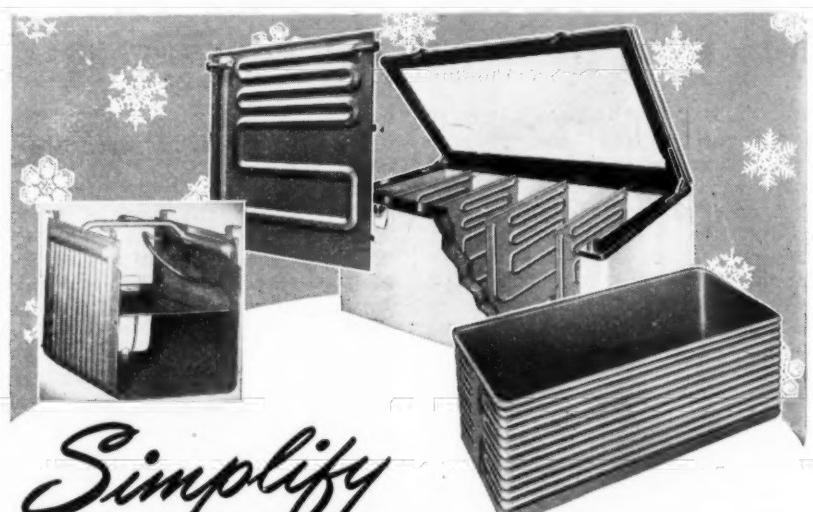
Valves, Driers, Strainers, Control Devices and Accessories for Refrigeration and Air Conditioning and Industrial Applications.



SOLD BY LEADING WHOLESALERS

HENRY VALVE CO.

Melrose Park, Ill. (Chicago Suburb) Cable: HEVALCO Melrose Park, Illinois



**Simplify
Your Construction Methods
with Engineered KOLD-HOLD Liners**

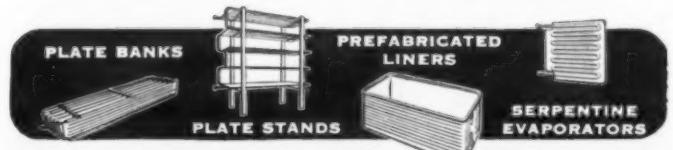
You save hours of valuable construction time and build extra efficiency into refrigeration equipment, by using prefabricated Kold-Hold Liners. These Liners quickly slip into place to provide adequate refrigeration for the sharp freezing, cooling and holding of all types of foods and perishable products. The inner surface is smooth and sanitary — no other linings required.

There are no refrigeration joints to become damaged with the complete cabinet liner. Liners are fabricated from Serpentine Plate Evaporators

without interfering with the Serpentine principle of refrigerant flow. Therefore, they retain all the advantages and proven dependability of Serpentine construction.

Kold-Hold Prefabricated Units save time and money for the manufacturer, service engineer and user. They increase efficiency and reduce the cost of both domestic and commercial refrigeration equipment. They simplify conversion of obsolete equipment to meet today's standards of efficiency and dependability.

See your service engineer or write us for details.
Immediate delivery from jobbers' stock in principal cities.



KOLD-HOLD
protects every step of the way
KOLD-HOLD MANUFACTURING CO., 500 E. Hazel St., Lansing 4, Mich.

Successful Freezer Demonstrations Don't Happen--They're Planned, Amana Stresses

(Concluded from preceding page)

To Mr. MacGregor the home freezer means a cut in the food budget by about 20% for Mrs. MacGregor can purchase large quantities of low-priced specials.

To the children it means there is always plenty to eat on hand for unexpected friends; lots of ice cream always in the freezer; no more hash but good fresh meat every day and no last minute shopping errands for Junior.

The MacGregors' neighbors tell what they have observed the home freezer has done for the family. The doctor observes that the MacGregors enjoy healthful balanced meals at all times with all nutritious vitamins, juices, and flavors remaining intact and fresh vegetables and tree-ripened fruits on the table 12 months of the year instead of just seasonally.

The food market proprietor sees the MacGregors buying 20 and 30 pounds of meat, fish, poultry at a time thereby taking advantage of his low-priced specials; their friends see them living a lot better for a lot less and decide to follow their example by also investing in an Amana home freezer.

Then the discussion veers to the matter of "what are the elements in the freezer itself" that will assure the prospect that he is getting the right kind of a product. Several pages are then devoted to describing the design and construction features of the Amana line, and what they mean to the freezer prospect.

The manual tells that the two most important benefits a home freezer will give the purchaser are economy and convenience. But the purchaser will only get the most benefits from a freezer when he follows the most important rule of all and that is fitting the freezer to the family following this accepted size standard: three cubic feet or more of freezer space for each member of the family, with farm families requiring at least 6 cu. ft. per person.

Chart Shows Customer When It's Best To Buy Foods

Then the manual shows a savings chart indicating the months in which to buy meats, fruits, vegetables, poultry, seafood, butter, and eggs. When the dealer shows this chart to the prospect he should ask how many in the family of the prospect and depending on the answer "2, 3, 4, 5, or 6" he will flip to a certain page and that will show what particular model of Amana home freezer to buy and will tell how much the prospect will save per month when the freezer is put to its maximum use.

Data Indicates Family of 4 Can Save \$25 Per Month

For example, for the family of 4 (3.7 average American family), the Amana 12-cu. ft. would be used with savings of \$6.03 per month on meat, \$1.13 per month on poultry and dairy products, \$6.20 per month on desserts—ice cream and fruit, and

\$9.66 savings on vegetables and savings of \$2.60 on leftovers making a total savings per month of \$25.62. All these figures have been carefully worked out in accordance with tested government statistics.

Manual's 'Swingout' Pages Help Patron 'See' Freezer

The salesman—and the manual—get down to business in the next section, which is "fitting your freezer to your family." Based on the formula of "3 cu. ft. or more of freezer space for each member of the family," the story tells itself in a series of very cleverly designed "swingout" pages which show the Amana freezers in three-dimensional effect.

On the "black floor" on which the freezer stands are charted figures which show how much the family of a specific size can save per month when putting the freezer to its maximum use.

On the back of each of these pages is a guide for salesmen which says, for example, "Customer is now looking at Amana model 60 for family of two. Features are . . . retail price is . . . monthly payments are . . . possible monthly savings on present food bills. . . ." Thus charted for the salesman is the exact sales story on the particular model which the prospect should purchase.

To wind up the story the manual has a page which explains the warranties on the freezer itself, and also the food protection plan which guarantees the purchaser protection against food spoilage in the freezer for five years. Final page tells the story of the men who make the Amana freezer—unusual, of course, because of the nature of the Amana Society organization, the tradition of craftsmanship, etc.

Bergman, of course, has not confined promotional efforts to the manual. A whole host of promotion pieces and newspaper advertising mats were prepared and made available for the Amana dealers.

Probably most unusual among the promotion pieces are the "Food Savings Chart and 'When-To-Buy' Calendar," and the *Amana Freezer News*.

The former is a small envelope stuffer which has a clever calendar-type "when-to-buy" chart, showing the items to buy and stock in the freezer each month in order to obtain maximum quality and savings; the savings chart that shows how much can be saved each month on meat, poultry, desserts, vegetables, and leftovers; and illustrations of various models in the line and how they fit various-sized families.

The *Amana Freezer News* is a letter-size tabloid newspaper, cleverly made up, and heavily emphasizing informative materials, such as recipes, methods of preparing fish for freezing, testimonials from users, comparisons of time, effort, and materials needed between freezing and canning, recommended maximum storage periods for frozen foods, and very little pitch for the product itself, but plenty of invitation to the user to seek information about the Amana freezer.

Check-List Tells How To Run Freezer Demonstration

Last but not least is the outline for home freezer demonstrations, staged by home economists—and Amana has one of the largest programs of this type in the field. The outline points out that while the distributor will furnish a company home economist demonstrator, it is up to the dealer to attend to certain details in order that the event will be a success.

The outline is full of important ideas and suggestions which many

dealers might overlook in staging such an event, and these are some of them:

"If you hold demonstrations in your store, be sure your selection is such that the transaction of normal business will not distract or disturb the demonstration.

"Use a stage that is elevated sufficiently to permit the demonstrator to be easily seen by the audience.

"Number of people attending will be in direct proportion to the amount of build-up you give the affair. Use mailings to invite prospects, but don't forget the telephone for personal invitations.

"In newspaper advertising, feature extra attractions in the form of special entertainment, refreshments, or door prizes. These extra features are of little value unless they are publicized in advance of the demonstration. Any window signs should cover such features.

"After the home economist has given her demonstration, the dealer and the salesmen, as well as the home economist, should be prepared to answer any and all questions.

"Be sure to have 'live' freezer models ready for individual demonstrations after the home economists' talk.

"During the demonstration be sure that all in attendance fill out a card giving their name and address. Award attendance prizes at close of the demonstration.

"In the follow-up, do these things: (1) Have salesmen follow-up all prospects promptly. (2) Send out thank-you letters with additional literature. (3) Give local or community newspapers a story on the winners of prizes. (4) Keep follow-up going—the effect of a demonstration lasts many months."

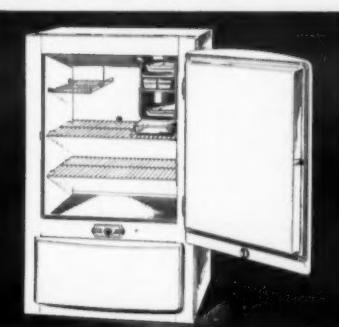
Every American Family . . . NEEDS A SECOND, SMALLER REFRIGERATOR FOR THE HOME • OFFICE • COTTAGE • BOAT • RECREATION ROOM • SMALL APARTMENT, ETC.

A WIDE OPEN MARKET FOR DEALER PROFITS!

MARVEL Specialized REFRIGERATOR WILL MEET THIS CONSUMER DEMAND 100%

The Result of 13 Years of Refrigeration Engineering

Marvel has built small, specialized refrigerators since 1937. Superb production facilities in our new, modern plant at Sturgis, designed and built exclusively for refrigerator manufacture. Every unit individually tested. Performance guaranteed.



Write FOR DEALER LITERATURE!
MARVEL INDUSTRIES, Inc.
Sturgis, Mich.

New! From Kelvinator!

A Commercial-Duty FROZEN FOOD MERCHANDISER



combining
PEAK SALES POWER
SAFE FOOD PROTECTION
AMAZING LOW PRICE!

Here it is—yours for worlds of new profit opportunities. It's the merchandiser truly wanted by frozen food retailers! It's a real commercial-duty merchandiser for use as a . . . "Juice Center", "Packaged Foods Center" or "Spot Special"! And look at these typically Kelvinator extra-values:

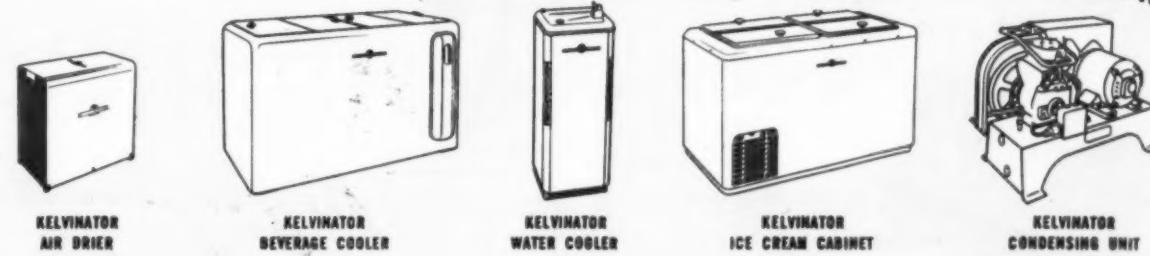
- **Versatile backboard!** Holds standard promotional displays or store-made signs on "specials"!
- **Full open top** for maximum display of products! Yet foods keep at safe-frozen temperatures!
- **Commercial-duty design!** All 4 walls, dividers and bottom of left-hand compartment refrigerated!
- **2 large, sturdy baskets!** Keep foods near top, easy to select, easy to buy!
- **Handy night cover!** Completely covers top opening after store hours . . . hangs on back of cabinet during day!
- **5-year warranty** on Polarsphere cold-making mechanism assures low maintenance costs!

Stake out your claim in the rich new frozen food field now . . . by promoting this low-priced, top-quality Kelvinator! Write, phone, or stop in at your nearest Kelvinator supply depot. Kelvinator, Division of Nash-Kelvinator Corporation, Detroit 32, Michigan.

PROFIT TODAY...BUILD FOR TOMORROW WITH

Kelvinator

THE NAME THAT SELLS...THE NAME THAT SATISFIES!



Refrigeration Units WANTED

Desire to purchase $\frac{1}{8}$ to 1-HP Sealed or open type; standard brands; Complete condensing units; Also parts; Give full details.

HARWOODE EXPORT CO.

31 E. 4 Street, New York 3, N. Y.



MOTOR-BASE ADAPTERS

Our No. 103-C 1 to 3 h. p. motor adapter set is rapidly gaining popularity with air conditioning equipment manufacturers, and service engineers.

SERVICEMEN SEE YOUR JOBBER

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They'll Do It Every Time . . . By Jimmy Hatlo



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VOLUME 60, NO. 17, SERIAL NO. 1,118, AUGUST 21, 1950

"I have always felt that whatever the Divine Providence permitted to occur I was not too proud to report. The people are not served by pussyfooting, or by that sort of journalism in which nobody will ask who is the editor of a paper or the writer of an article, and nobody will care."—Charles A. Dana.

Why Cut Prices At a Time Like This?

BELIEVE it or not, reports are drifting into the offices of AIR CONDITIONING & REFRIGERATION NEWS that there is some price-cutting going on out in the field currently. Following up leads, our own reporters have discovered isolated instances of such crack-brained activity among:

- (1) Commercial dealers and jobbers
- (2) Servicemen
- (3) Appliance dealers (on air conditioning and television)

The prevalence of such instances can be roughly allocated among the three groups in the order named.

Servicemen, in bidding on annual contracts, are still thinking in terms of "keeping their shop going." Such thinking, surely, won't prevail more than a few months longer. By that time, the competition for mechanics—in our skilled-labor short economy—will become so all-fired keen that servicemen will likely be able to "pick and choose" from among the jobs offered them.

As for jobbers slitting one another up the back, there are two explanations. One is that some of them are continuing to make "whispered discounts" simply out of force-of-habit.

The other explanation is that a few jobbers have stocked up to the rafters to hedge against rising prices, and as a result have altogether too much working capital (plus borrowed capital, in some cases!) tied up in inventory. A few such jobbers have been indulging in a bit of quiet unloading.

Whereas the NEWS has been advocating that jobbers anticipate their actual requirements in advance, placing orders accordingly, there is naturally a safe limit beyond which no sound businessman should go in tying up his capital in inventory.

Every jobber and every dealer should be sufficiently liquid that a sudden shock—or a temporary business lull of, say, 90 days' duration—would not put him out of business.

So, while the time for hand-to-mouth buying is definitely past, the need for establishing financial safeguards against sudden business shocks is here for sure. We are entering a period of vast uncertainties. And the first law of business, like the first law of life, is survival.

Put briefly, jobbers and dealers will be called on to be business managers much more than they have been in the past. The strain on the head of the business is going to be greater, his capacity for making hair-line decisions will become more important, and more and more he will be faced with problems the solution of which will call for a high order of cerebrative power.

Now is the time, then, for all good jobbers and dealers to straighten up their houses with relation to price cutting. There will never be a better opportunity to put the business in order.

It's a time not only to put the industry on a sound basis with regard to price, but it's a time to acquire a bit of cash reserve as a "cushion" against emergencies. If business drops off suddenly, most of us will need every dime we can lay hands on in order to weather the storm.

So, from every angle—sound business practices, nest-egg storage, and the old-but-sometimes-forgotten idea of profits—the idea of cutting prices to beat a competitor out of a sale should be buried alongside the mustache cup, the stovepipe hat, and hitching post.

It simply does not belong in the present era.

What the serviceman should know about VIRGINIA REFRIGERATION products

To Charge a System,
Use Refrigerants
That Are
Consistently Pure,
Consistently Sure...



"EXTRA DRY ESOTOO"

(B.P.—14°F.)

"Extra Dry" is the refrigeration grade SO₂ that service and maintenance engineers have endorsed for more than 20 years. Comes in all popular cylinder sizes.

"V-METH-L" (B.P.—10.7°F.)

Virginia Methyl Chloride is made specifically for refrigeration use. Low moisture content, low acidity and narrow boiling range recommend "V-Meth-L" for the most exacting requirements.

"FREON" REFRIGERANTS

"FREON-11"	"FREON-12"
"Boiling Point"	"Boiling Point"
74.7°F.	-21.6°F.
"FREON-22"	"FREON-113"
"Boiling Point"	"Boiling Point"
-41.4°F.	117.6°F.
"FREON-114"	
"Boiling Point"	
38.0°F.	

Virginia Smelting Company is distributor for Kinetic's "Freon" Refrigerants.

HOW TO STOP DРИPPING PIPES

The annoyance of constantly dripping suction lines, circulating cold water pipes, valves and fittings can be stopped—permanently—with Presstite Insulation Tape. It comes in 2"-wide rolls, $\frac{1}{8}$ " thick. Presstite Insulation Tape contains 40 percent virgin cork and will adhere to any surface. Joints are self-sealing. The convenient package contains 30 lineal feet. It's good policy to use Presstite Insulation Tape on all new and reconditioned installations and stop customer dissatisfaction before it can start.



ASK YOUR WHOLESALER OR WRITE

VIRGINIA SMELTING COMPANY

WEST NORFOLK
PHILADELPHIA • NEW YORK • BOSTON
CHICAGO • DETROIT • ATLANTA

VIRGINIA
Refrigerants

Package Air Conditioner Helps Bakery In Omaha Push Sales to New High

OMAHA, Neb.—Sales of bakery products in the retail store of the Kuenne Bakery, 2916 Leavenworth St., Nebraska's oldest bakery, have hit an all-time high this year as the result of a remodeling project which included installation of a 5-ton General Electric packaged air conditioning unit, it was reported by Bill Riddle, co-owner.

Riddle said that since the air conditioning system was installed, numerous customers have remarked about how pleasant it is to shop at Kuenne's. A baffle on the air conditioning outlet also sends cool air into the enclosed office located on a balcony just above the machine and has made the office a pleasant place to work in the summer, whereas before, the heat was almost unbearable on hot days, the baker declared.

The proprietor also pointed out that the bakery has the largest special business of any single location in Omaha, and employs two experts who give their full time to cake decorating. This special order business has increased so fast since air conditioning was installed that a third decorator is to be hired. The bakery has set up a special "Will Call" department in the air conditioned retail room where customers call for their special orders.

11 Refrigerator Cars with Automatic Units on Trial

ROCHESTER, N. Y.—The International Apple Association News Letter reported recently that the Fruit Growers Express Co. expects to begin operating 11 refrigerator cars equipped with gasoline-driven automatic refrigeration units.

The units are made by the U. S. Thermo Control Co., of Minneapolis. Through automatic controls the temperature of the car may be kept at any point from -20° F. to 65° F.

If the outside temperature declines to a point where it is necessary to heat the interior of the car rather than cool it, a heating unit takes over and maintains a temperature in the car at a desired level.

These 11 cars will be used chiefly in hauling frozen concentrated orange juice from Florida to eastern and midwest markets. Two cars similarly equipped have been on trial in Canada and the United States. Now 11 are placed on trial in what is anticipated as a new era in food transportation.

Arena, Main Office of New Stockyard Are Air Conditioned

SELMA, Ala.—The Selma Stockyard, occupying a modern and air conditioned building, held its formal opening Aug. 10. The arena and main office is air conditioned for customer comfort. Seats in the spacious arena are padded.

LOOK to LARKIN
for Durability

THE ORIGINAL, PATENTED CROSS-FIN COIL

The refrigeration coil that changed an industry stands today unchallenged for performance, user satisfaction and lasting durability. Made from only the finest materials by skilled craftsmen under exacting standards, every Larkin Coil features imbedded fin-to-tube contact, swaged connection, silos welded construction, and staggered tubing. Write for complete details.

Manufacturers of the original Cross-Fin Coil—Humi-Temp Units—Evaporative and Air Cooled Condensers—Air Conditioning Units and Coils—Direct Expansion Water Coolers—Steel Vacuum Plate Coils—Heat Exchangers.

WORLD'S LARGEST MANUFACTURER OF AIR CONDITIONING EQUIPMENT

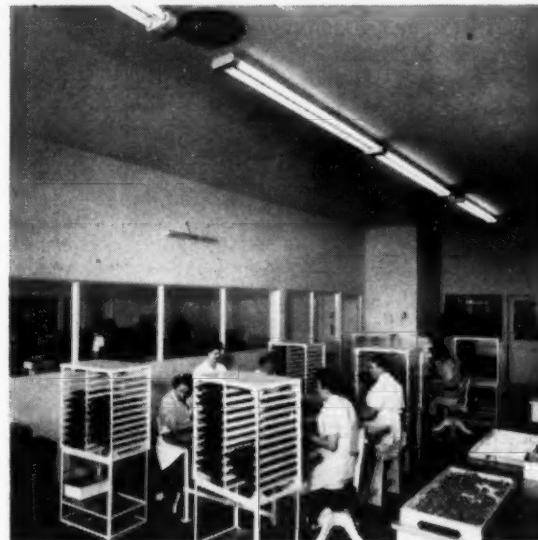
LARKIN COILS
319 MEMORIAL DR. S.E. • ATLANTA, GA.

Candy Plant's Cooling, Heating System Protects Chocolate Coatings from Cold Room to Customer

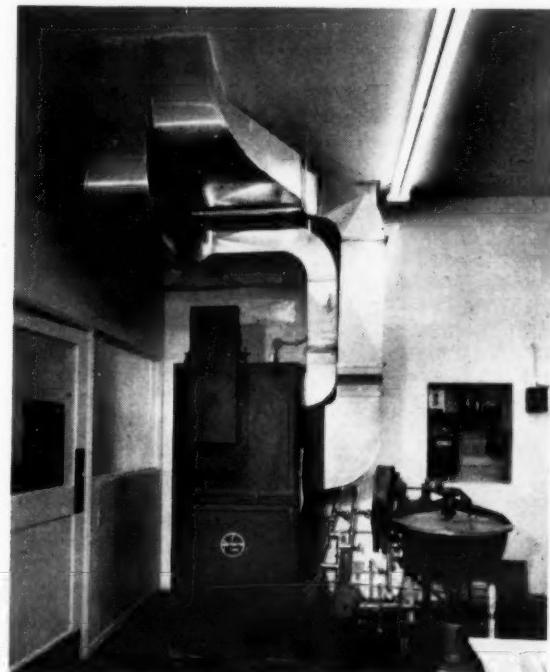
No Blushing Chocolates Here



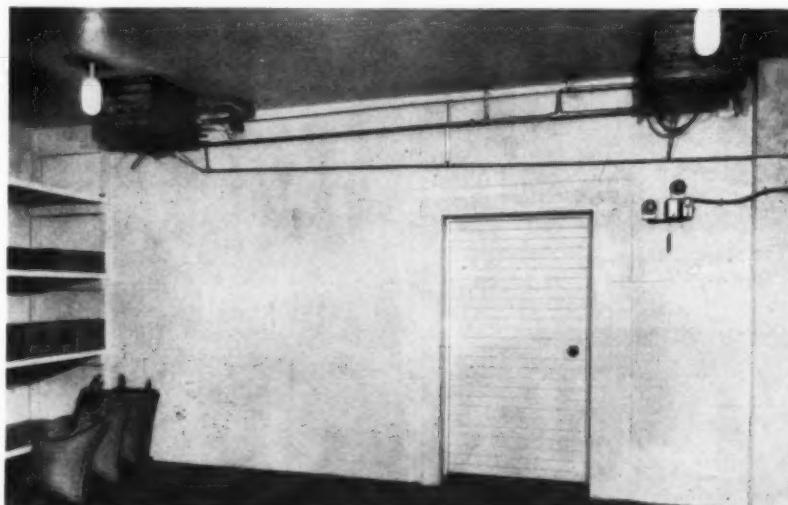
RETAIL SALESROOM: Mrs. Allen Wertz behind counter in retail salesroom of Allen Wertz' new Los Feliz Blvd. candy plant in Glendale, Calif. Note air conditioning outlets flush with the ceiling. Combined heating and air conditioning system keeps chocolate coverings from blushing.



ENROBING, PACKING ROOMS: Enrobing room is in foreground, packing room in background. Flush air conditioning outlets are inconspicuous.



MACHINE ROOM: Master unit is Yorkaire model 1001, installed in a secluded spot in the factory.



COLD ROOM: Two units in the cold room with thermostats and humidistats and reheat elements maintain desired temperature and humidity.

GLENDALE, Calif.—When there is no preservative used in chocolate coverings, control of temperature is a critical item. Allen Wertz, well-known candymaker here, uses a combined heating and air conditioning system to handle the situation.

Many years ago the Los Angeles Symphony Orchestra lost a first class violinist, but the west coast gained a first class candy maker. When Wertz first came to Los Angeles about 30 years ago it was to play the violin in the Symphony. Later on an impairment of his hearing forced him to give up professional music. He returned to Pennsylvania with Mrs. Wertz and entered the candy business her father was running.

About 12 years ago Wertz returned to Los Angeles and opened a little candy business. Today he has two modern stores and a new factory. The business is a family affair now with the five Wertz children all taking an active part.

The new Los Feliz Blvd. plant in Glendale, is of modern structure, with air conditioning, glass brick walls, and fluorescent lighting. Hugh Strange of the Commercial Refrigeration Co. of Los Angeles was called in to design the air conditioning and heating system to fit the needs of the product.

When no preservative is used in chocolate coverings for candy it is necessary to gradually step up the temperature and control the humidity from the cold storage room through the enrobing room to packing room to retail sales room in order to keep the chocolate from blushing. The temperature in the sales room also has to be fairly close to the outside temperature to protect the chocolate from too sudden a temperature change.

The system was designed to fit the structure and as a result all the ducts were installed in the attic space so as not to be visible from the floor. The outlets in each room are a light gray and installed flush with the ceiling. A Yorkaire Model 1001 is the master unit and was installed in an inconspicuous place.

The temperature in the cold room is maintained between 60-68° F. and the relative humidity ranges between

50-55%. Two units in the cold room keep the above ranges by use of the reheat system. Humidity is controlled by a humidistat and when the unit operates only to keep proper relative humidities, the reheat system goes into operation and maintains the temperature at desired level.

The enrobing room temperature is held to around 65° F. with relative humidity between 50 and 55%. As the same air conditioning unit handles both the packing room and enrobing room, a motorized damper was installed in the ducts to keep the temperature lower in the enrobing room than in the packing room. The heating system is controlled by thermostats in each room and when the temperatures drop below the desired degrees the heating system takes over.

Air conditioning and heating for the retail sales and display room and the offices are controlled by a Yorkaire model 550 conditioner. Temperature is kept around 70° F. with relative humidity kept between 50-55%.

Conservation of the condenser water is accomplished by use of a convection cooling tower installed on the roof. The water circulates through the system machines and then goes back to the tower and is cooled. A float valve in the bottom of the water supply tank maintains the proper water level.

Deal Gets Post with G-E Div.

SCHENECTADY, N. Y.—Paul M. Deal has been appointed administrative assistant of General Electric's fractional horsepower motor divisions, it was announced recently by M. E. Lord, divisions' manager.

AIR CONDITIONING

Firm—5 yrs young, with outstanding installations in the Mid-Manhattan area, many for nationally known organizations, some the largest in the nation, seeks to employ a qualified "SALES ENGINEER". Must be between the age of 35 & 45. Must be fully acquainted with high tonnages, as well as heating. Must have following among General Contractors & Architects. Must have done a minimum of \$200,000.00 gross business for present or previous employer.

In return, this firm offers salary of \$6,500.00 a Year, 3% commission on Gross Business over a stipulated amount. Possibility for membership in the firm without financial investment. We are asking for a lot, but the opportunity for a permanent position, active participation in management, engineering, sales, and profit sharing, plus high yearly earnings, is one in a million. The right kind of man is wanted, YOU may be it! Write giving full details. All replies shall be held in the strictest of confidence.

Air Conditioning & Refrigeration News
BOX 3558

FAST...ACCURATE DIAGNOSIS OF A SERVICE PROBLEM



MUELLER BRASS CO. "SEEING EYE" LIQUID INDICATORS TELL AT A GLANCE WHETHER OR NOT THE SYSTEM IS SHORT OF REFRIGERANT



Packaged in individual cartons to protect your investment.

BUBBLES INDICATE
LIQUID SHORTAGE



FOR IDEAL LIGHT CONDITIONS

NO NEED TO GUESS! with the new, improved Mueller Brass Co. Liquid Indicators you can save valuable time in diagnosing a service problem.

By simply removing the brass protecting cap, and looking through the clear, clean sight glass, you can tell at a glance whether or not the system is short of refrigerant.

The rugged, forged brass body is permanently leak-proof and is designed for years of safe, dependable service.

Available in male or female flare and O.D. solder types in a wide range of sizes.



SINGLE PORT
INDICATOR



DOUBLE PORT
INDICATOR



FOR MINIMUM LIGHT

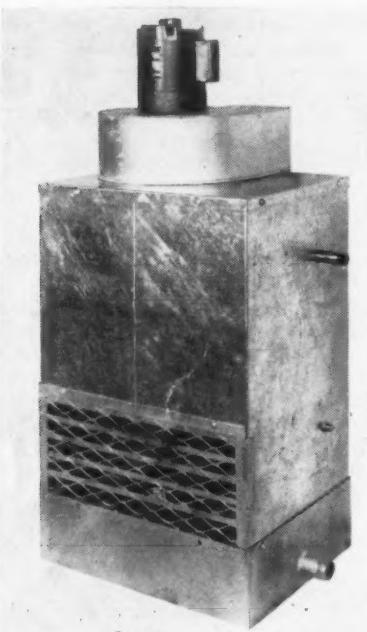
ORDER A SUPPLY TODAY FROM YOUR REFRIGERATION WHOLESALER

MUELLER BRASS CO.
PORT HURON, MICHIGAN



What's New

Acme Towers for Indoor or Outdoor Use



JACKSON, Mich.—Acme Industries, Inc., has announced release of a new series of induced draft cooling towers for use with self-contained refrigeration and air conditioning equipment.

"All unnecessary parts have been eliminated to reduce weight to the absolute minimum consistent with long life," the company said.

The models may be used for indoor or outdoor application with external duct resistance of $\frac{1}{4}$ -in. or less. They are designated as models TCJ-2, 2A, 3, and 3A.

For use with units up to and including 5-hp., the towers have the fans located at the top to provide vertical air movement across the filling. Air is discharged horizontally

at a velocity sufficient to prevent recirculation. The air intake and louver assembly is fabricated into a single assembly and designed to eliminate splashing.

The units are said to require "very little space." Models TCJ-2 and 2A measure approximately 22 in. in width, 15 in. in depth, and 51 in. in height. The TCJ-3 and 3A are slightly larger, measuring 30 in. in width, 22 in. in depth, and 53 in. in height. Model TCJ-2A weighs 148 lbs. and the TCJ-3A 360 lbs.

The cooling tower base is of one-piece construction, 14-gauge pickled and oiled steel hot-dip galvanized after fabrication. The top and center section are each of one-piece construction, 16-gauge "Zincgrip" metal.

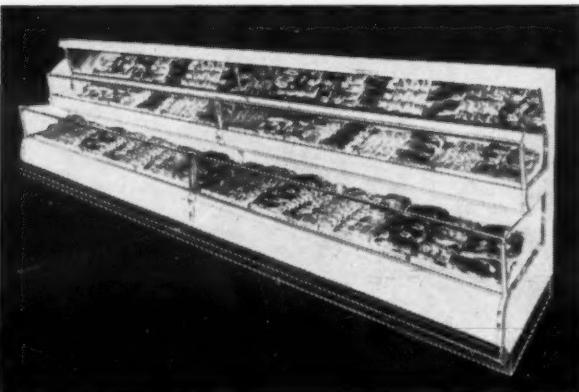
A fan motor is provided suitable for either indoor or outdoor use; motors are for use with either 115 or 230-volt, single-phase, 60-cycle operation. Motors are also available for use with 220-440-volt, polyphase, 60-cycle.

The TC-2 has a 1,750 r.p.m. motor and the TC-3 a 1,140 r.p.m. motor.

The present models are not furnished with pumps because, Acme explained, "so many of these towers are being applied to existing systems and the pumping heads vary considerably requiring individual pump selection." However, connections are provided to permit the use of an attached pump. All bolts throughout the unit are cadmium plated and nuts are of the clip-on type treated to resist corrosion.

The filling or cooling pad is designed of fire-resistant, corrosion-proof material and holds water on an extensive wetted surface. The eliminator is similar in design to the filling and is said to effectively retard moisture entry into the fan.

Hussmann 2-Deck Case Offers More Display Space



Two of the new Hussmann two-deck merchandising cabinets joined together. The new case comes in two sizes, 6 ft. and 8 ft. Two or more of these may be joined, as in the illustration.

ST. LOUIS—Hussmann Refrigeration, Inc., has introduced a two-deck case for self-service merchandising of pre-packaged fresh meats.

Manufactured in 6-ft. (model 2D-6) and 8-ft. (model 2D-8) lengths, multiples of two or more cases may be joined together to produce a continuous display.

The merchandising area consists of 28½-in. deep display shelves in lower selling area and 20-in. deep display shelves in upper selling area. This multiple refrigerated shelf area gives the merchant more display per square foot of floor space.

NEW!

REFRIGERATED DISPLAY TABLE

Another sales opportunity for TYLER AGENTS!

The latest Tyler FIRST offers shopping from all 4 sides—wide open self-service! Complete, ready to use—small floor space! For all types of food stores, restaurants, hotels, taverns, florist and bakery shops, candy stores, etc. Write today. Tyler Fixture Corporation, Dept. R-8, Niles, Michigan.

TYLER
FOR FOOD REFRIGERATION

Drink Mixers Designed For Home, Store Use

LONG ISLAND CITY, N. Y.—Available from Premier Industries Corp. here is a full line of "Champion" mixers for professional and home use in making milk drinks, malteds, frosts, cocktails, and the like.

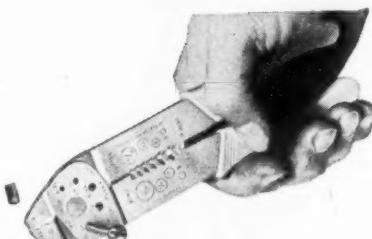
The appliances are manufactured in both pedestal and bracket types. All operate with standard metal, glass, paper, and plastic containers.

The various models have aluminum or chrome-plated, die-cast housings and stainless steel mixing units. Stands of the pedestal-type mixers are finished in porcelain or baked enamel.

The motor unit is removable, according to the company.

Premier Industries is located at 37-12 35th St., Long Island City 1, N. Y.

New Hand Tool Can Crimp, Cut, Strip, and Shear



HARRISBURG, Pa.—A new low cost hand tool incorporates jaws for crimping solderless terminals with an already versatile "cutting," "stripping," and "bolt-shearing" device.

The tool is designed to attach a special line of inexpensive general use terminals and connectors known as "wire-ends" to wire in ranges No. 22 to No. 10. The manufacturer points out that in addition to crimping such terminals firmly, the "Champ" tool is capable of preparing the wire beforehand by use of the "guillotine type" wire cutting and wire stripping features.

Bolts, too, in five "most used" sizes will shear off clean, requiring no additional filing or "make-ready" before use. Champ has useful wire size and stud size gauges engraved on the side of the tool. Manufactured of high grade, heat-treated tool steel, the item (catalog No. 49835) is distributed by Aircraft-Marine Products Inc.'s Independent Distributor Division, located at 1601 N. Front St., here.

Called the Kook-N-Kool, the range-refrigerator stands 43 in. high, 19½ in. wide, and 18½ in. deep. The top of the unit contains two electric hotplates and the bottom the refrigerator.

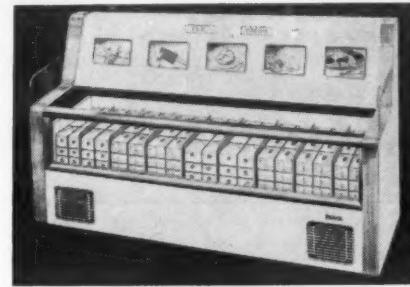
The refrigerator has two ice cube trays, another tray, and space for food. The refrigerator door has a lock and key.

The appliance plugs in to any standard outlet.

A folding dinette rounds out the 4-in-1 unit. The dinette features a Dolax top that is said to be heat resistant, scratchproof, stain resistant, and easy to clean. It is provided with a built-in two-way electrical outlet.

Heavily padded benches upholstered in Duran plastic can seat four people. When not in use, the benches tuck away under the table, according to the company.

Ice cream photographs and flavor strips are furnished with the cabinet. Casters are optional.



Jordon model OF-17 self-service merchandising cabinet.

Jordon Case Fits Average And Smaller Size Store

PHILADELPHIA—Jordon Refrigerator Co. has announced the production of the new model OF-17, glass front, self-service, merchandising cabinet for frozen food and ice cream.

This model has been designed and engineered to meet the requirements of the average and smaller than average retailer.

The Jordon model OF-17 refrigeration system is powered by two self-contained ½-hp. hermetically sealed units that require only plug-in installation. The cabinet is refrigerated by eight large freezing plates, plus wrap-around coiling on three walls. The front display section is made up of a four-thickness, air-sealed display glass.

The merchandising cabinet is equipped with illuminated superstructure featuring five full-color product pictures as well as ticket moulding for price and item slides.

The display section of the freezer, as well as the superstructure, is illuminated by instant-starting, slimline lights.

Construction features include all-welded steel, vaporproof construction; high-baked white enamel "auto-body" finish; stainless steel and chrome trim; and slide-out units for quick and convenient cleaning and servicing.

Exterior dimensions of the Jordon model OF-17 are: height 58½ in., length 91¼ in., and depth 30 in.

This model, company officials advise, is available for immediate delivery.

Higgins 4-In-1 Unit Has Refrigerator and Range

CHICAGO—A combination refrigerator and electric range that forms part of the Higgins 4-in-1 utility unit is being manufactured by Ideal Steel Products, Inc., in the American Furniture Mart here.

Called the Kook-N-Kool, the range-refrigerator stands 43 in. high, 19½ in. wide, and 18½ in. deep. The top of the unit contains two electric hotplates and the bottom the refrigerator.

The refrigerator has two ice cube trays, another tray, and space for food. The refrigerator door has a lock and key.

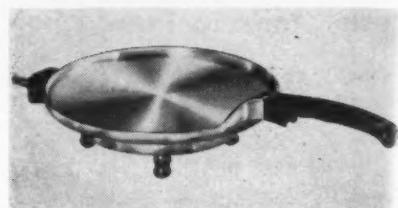
The appliance plugs in to any standard outlet.

A folding dinette rounds out the 4-in-1 unit. The dinette features a Dolax top that is said to be heat resistant, scratchproof, stain resistant, and easy to clean. It is provided with a built-in two-way electrical outlet.

Heavily padded benches upholstered in Duran plastic can seat four people. When not in use, the benches tuck away under the table, according to the company.

Ice cream photographs and flavor strips are furnished with the cabinet. Casters are optional.

Electric Grill Can Be Washed In Dishpan



Leckie electric grill.

ROME, N. Y.—Now being produced by Leckie Electric Utensil Co., Inc., here, is an electric grill that can be washed in the dishpan.

The heat unit of the grill, like that of other Leckie electric utensils, is cast in the bottom of the product's aluminum body. Thus, according to the company, the appliance is waterproof.

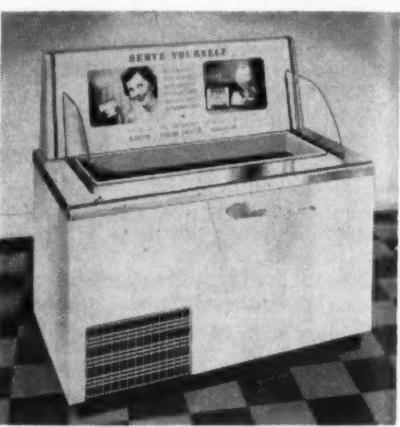
Also because of this feature, heat loss is "imperceptible," it is claimed. This is said to mean even heat with no "hot spots" and to permit disconnecting the grill about 10 minutes before cooking is complete.

The grill—designated model G-910—was designed for cooking pancakes, bacon, sausages, frankfurters, hamburgers, ham, eggs, and French toast, frying potatoes, and grilling steaks and chops.

It has two heats. The desired heat is obtained by inserting the plug into the grill with the words "high" or "low" uppermost.

The grill, which has porcelain feet, is 2½ in. in height and 10 in. in diameter. It is rated at 650 watts. Price: \$12.95.

More Product Visibility Featured In Savage Case



1951 Savage M-9 merchandising cabinet.

UTICA, N. Y.—More product visibility through full-length top opening and increased refrigerating efficiency are among features claimed for the new 1951 Savage M-9 merchandising cabinet announced recently by the Refrigeration Division of Savage Arms Corp.

Also, a longer superstructure contains two full-color ice cream photographs lighted by two fluorescent tubes to give eye-appeal for the impulse buyer, according to the company.

The cabinet has three refrigerated partitions for increased primary refrigeration surfaces. They are said to assure equal temperatures throughout the cabinet.

Other operating advantages of the merchandiser include larger capacity, permanent hermetic seal against moisture infiltration, Underwriters' Laboratory approved electrical equipment, and pull-out compressor for easy maintenance.

Ice cream photographs and flavor strips are furnished with the cabinet. Casters are optional.

AIR CONDITIONING UNITS

by
KRAMER

EFFICIENT LONG LIFE

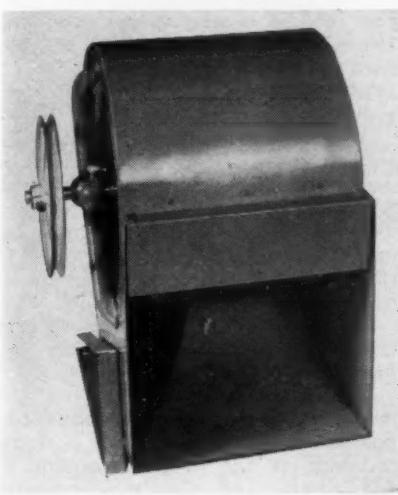
FOUR SIZES
3-5-7½ and 10
TON CAPACITY

ADAPTABLE
for COOLING
and HEATING

write
for BULLETIN AC-171

KRAMER TRENTON CO. Trenton 5, N. J.

What's New (Cont.)



Blower Is Made for Small Space, High Air Pressure

CLEVELAND—A new No. 139 small blower assembly described as "particularly suitable for installation in furnaces or air conditioners where width space is limited or where high air pressure and lower air volume are desired" is now being manufactured by Viking Air Conditioning Corp. here.

The blower wheel in the assembly has the same wheel diameter (13 in.) as the Viking No. 1312. Therefore, it produces the same air pressure. However, the No. 139 is three inches narrower in width.

The assembly is said to overcome resistances due to excessively long ductwork, cooling coils in the plenum, or restricted areas over heat exchangers.

The company claims it is also "the answer for those situations in which both quiet operation and high pressure are desired."

The new blower is available in a variety of arrangements engineered to specific application in furnaces and air conditioners.

SUPER-COLD
COMPLETE FOOD STORE
REFRIGERATION UNDER
ONE GREAT NAME

Write for new liberal
Distributor-dealer
franchise agreement.

THE
SUPER-COLD
CORP.
1020 EAST FIFTY-NINTH STREET
LOS ANGELES 34, CALIFORNIA

Cooling, Heating Units Draw Air Through Coils

AUBURN, Ind.—A new line of air cooling and heating units that draw rather than blow air through a water circulating radiator has been announced by the Auburn Burner Co. here.

By this method of air movement, the air contacts the entire surface of the radiator rather than just the side facing the blower, according to the manufacturer.

The line includes four units with cooling capacities ranging from 2.4 to 5.4 tons for the smallest model to 8.1 to 16.4 tons in the largest. Tonnage capacities vary according to the temperature of the entering air and water, and the rate of water flow.

For heating, their capacities range from 135,000 B.t.u. to 210,000 B.t.u. based on 180° F. entering water temperature.

Completely self-contained, the units are designed for suspension mounting. Once mounted, the unit can be serviced from the bottom without removing it.

Measuring 29½ in. high, 42 in. wide, and 42 in. deep, the cooling units may be furnished with direct connection for connection to ducts or with directional louvers. They are equipped with removable filters through which all air is drawn.

Exterior finish of the unit is light grey.

G-E Lamp Chases Bad Odors From Air by Using Ozone

CLEVELAND—A lamp that dispels objectionable odors in appliances, kitchens, and offices by neutralizing them in ozone is now being marketed by the Lamp Div. of General Electric Co.

The lamp produces small quantities of ozone, a form of oxygen. This produces indoors the refreshing atmosphere so noticeable outdoors following an electrical storm, it is claimed.

Although the lamps will be marketed for homes and offices, installations have already been made in refrigerators, clothes dryers, and beverage vending machines. The lamp is also recommended for heating, ventilating, and air conditioning units.

Since the lamp also has a mild germicidal effect, it is believed the device would be desirable for small, sanitary storage cabinets for beauty and barber supplies, medical and dental instruments, tooth brushes, and similar supplies where extra protection is desired.

The lamp retails for \$1.30. A ballast and a simple fixture are required for original installations.



Cordley & Hayes Makes Junior-Size Water Cooler

NEW YORK CITY—Cordley & Hayes, producer of drinking water equipment, is now manufacturing its new junior model HJ-6—a self-contained electric water cooler expressly for children.

It delivers about 9 gals. of cool drinking water per hour under average conditions.

Constructed with the same full-sized parts used in standard Cordley models for commercial and industrial use, it has a completely sealed hermetic refrigeration system and carries a five-year warranty.

Modern Utilities Shows 2 Air Circulator Models

ST. LOUIS—Two new air circulators, one a floor model and the other a portable unit, have been introduced by the Modern Utilities Co., 2400 DeKalb St. here.

The floor model is the No. 40 Modern-Aire circulator. It makes use of a 12-in., 3-blade "vairified" air impeller and a 1/40-hp. motor. It is listed by the Underwriters' Laboratories, Inc. and carries a five-year guarantee.

Of all steel construction, it is finished in soft green and enclosed by a safety guard. Available for immediate delivery, the model 40 circulator will retail for \$22.95.

The portable fan, the Trav-L-Air, can be used as a desk or floor model, wall or window fan, or portable



traveling fan, the company said. It is enclosed in a chromed spiral grille with a detachable front guard and deflector.

When in place the deflector circulates the air outward in every direction.

tion. When the guard is snapped off the unit, it then becomes a straight fan. The adjustable stand can be used as a hanger to make a wall bracket fan of the unit. The stand can be removed for packing so that the Trav-L-Air occupies 11½ in. by 11½ in. in a traveling bag.

The unit is equipped with an 8-in., 5-blade "vairified" air impeller, 1/40-hp. motor and lists at \$17.95. It, too, is available for immediate delivery.

New Flame-Proofed Insulation Designed for Cooling Systems

CHICAGO—Greater flame-resistance has been incorporated in a new insulation product announced by Masonite Corp. under the trade name of Cellufoam Airflow. The product was developed especially for application in air conditioning systems where a higher degree of surface flame-proofing is considered desirable. Cellufoam for other uses as an insulating and acoustical material will continue to have its usual flame-proofing qualities.

Cory Starts Full-Scale Output of New Dishwasher

CHICAGO—Cory Corp. has announced the start of full-scale production of its "Matic Maid" portable electric dishwasher, according to J. W. Alsdorf, president.

Current output is set at 150 units per day with production figures due to reach 200 to 250 units per day.

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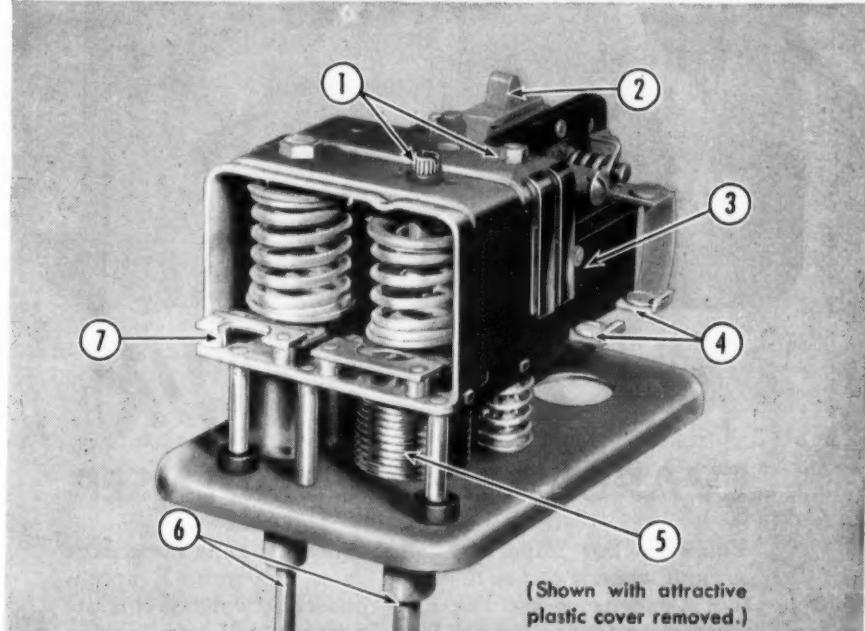


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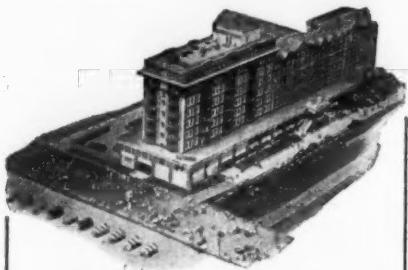
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1,100-Ton Air Conditioning System Cools Mutual Life Insurance Offices To End Summer Shut Downs

By C. Dale Mericle

SPRINGFIELD, Mass.—Totaling 1,100 tons, the new air conditioning system that has been placed in operation at the home office of Massachusetts Mutual Life Insurance Co. here is believed to be the third largest installation in New England.

Some 1,300 employees will benefit from the installation, explain officials of the company, who point out that the need for air conditioning has been in evidence for a long time.

"Last summer we had to close down the offices two or three afternoons because it was so hot and humid," commented Seneca M. Gamble, advertising manager.

Formerly a ventilating and air washer system was depended on to provide some measure of cooling, but according to Leo E. Kuehn, assistant secretary and head of the planning department, the air washer had to be turned off in the summer because of high humidity conditions.

The new installation is a chilled water system powered by two Worthington centrifugal machines located in the basement of the new storage building. These supply the cooling medium to six separate air-handling systems in the main four-story building; to four systems in the new east and west wing additions to the main building, and to smaller systems in the service building and new storage building.

Extensive use has been made of the existing ductwork in the main



Checking on the progress made thus far in connecting up the master control panel for the new 1,100-ton air conditioning system in the home office of Massachusetts Mutual Life Insurance Co. are (l. to r.) O. William Freeman, superintendent of buildings; Ralph R. Coombs, vice president; and Leo E. Kuehn, assistant secretary.

building, but in the new wings, offices will be cooled (and heated) by units recessed beneath the windows.

A Powers Regulator pneumatic zone control system is used throughout, and to conserve water a 90 by 200-ft. spray pond has been installed on the extensive grounds of the company. It is estimated that water usage will run no more than 250,000 cu. ft. per year.

The air conditioning was installed by Buerkel & Co., Inc., Boston contractor. General contractor was Turner Construction Co.; Cram and Ferguson, the architect.

Individual temperature control in the various offices within the zones of this installation is accomplished by modulating or two-position dampers in the air system which are regulated by room thermostats.

With adjustments concealed and having no thermometers, the thermostats cover an adjustment range of 60° to 80° F. for "day" or "occupied" operation and from 50° to 70° for "night" or "unoccupied" operation. Transfer from day to night setting is accomplished by remotely changing the main air line pressure in the zone from 13 p.s.i. for day operation to 18 p.s.i. for night operation.

All thermostats have a lever which permits a maintenance man but not the occupants to place any individual thermostat on the "day" setting when the building or zone is on the "night" setting. Individual thermostats so reset automatically come in step with the balance of the instruments in the zone when the main line pressure is again changed to 13 p.s.i.

In addition to the manual reset lever, each thermostat is equipped with an adjustment which permits permanent operation of individual instruments on either night or day setting regardless of the setting of other instruments in the same zone.

Additional controls are provided for the central fan systems. Each

of the six fan supply systems for the original office building is equipped with one fresh air, one recirculating, and one exhaust damper, plus face and by-pass dampers for the cooling and reheating coils.

The fresh air, exhaust, and recirculating dampers are controlled by one electro-pneumatic valve wired to the supply fan motor circuit and so connected through a minimum pressure pneumatic relay that when the supply fan is started the fresh air damper opens to the desired minimum position. The same three dampers are also connected for control by the dewpoint regulator, which also regulates the three-way chilled water valve.

Desired dewpoint temperature is maintained during both summer and winter operation by an indicating regulator with its thermostatic bulb located on the leaving side of the de-

humidifier. On a rise in temperature the fresh air and exhaust dampers gradually move from the minimum to the full open position as the recirculating damper travels from the open to closed position, next by the gradual opening of the three-way chilled water valve from the 100% by-pass position to the 0% by-pass position.

The reverse cycle takes place on a falling temperature.

Discharge temperature of each fan is maintained by an indicating sub-master regulator with its thermostatic bulb located in the supply fan discharge duct, controlling the automatic valves in the steam supply to the reheating coil and the dehumidifier face and by-pass dampers.

The cycle of control is such that on a falling temperature, the by-pass damper is modulated from a closed to open position while the face damper operates from a fully open position to its minimum set position, followed by the gradual opening of the smaller of the two reheat valves and finally by the gradual opening of the larger valve. On a temperature rise, the reverse cycle takes place.

Master control of air temperature is achieved through several master thermostats located in each zone which reset the sub-master air supply regulator through an averaging relay.

Additional controls provided for the six supply systems in the main building include a static pressure control, economizer control, and a safety high limit humidity control.

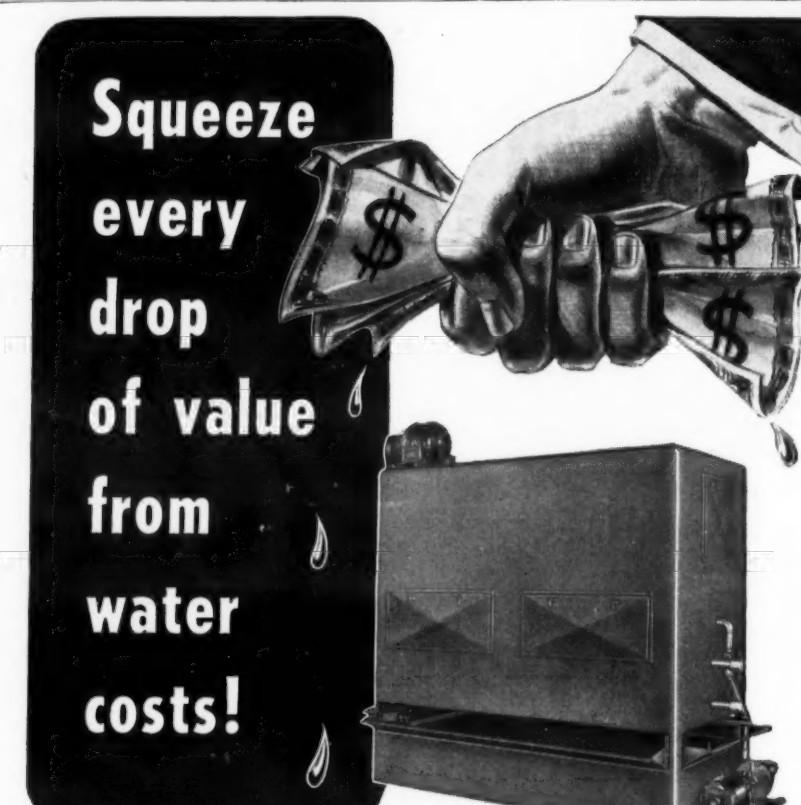
The static pressure regulator controls the vortex damper on the supply fans.

To prevent the use of maximum outdoor air for cooling when its temperature is too high, the economizer control has been incorporated in the system. This consists of an outdoor Foxboro Dewcel unit.

The safety high limit humidity control consists of a high limit hygrostat in the return air duct at the roof level. This controls the starting and stopping of the spray water circulating pump at the surface dehumidifier through an electric pressure switch wired to the pump motor starter. This control can be cut out of operation during summer by a manual switch.

Should the relative humidity of the return air exceed a pre-determined setting, the hygrostat stops the

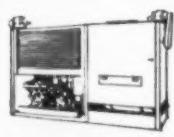
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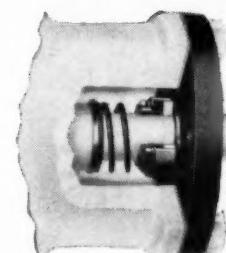
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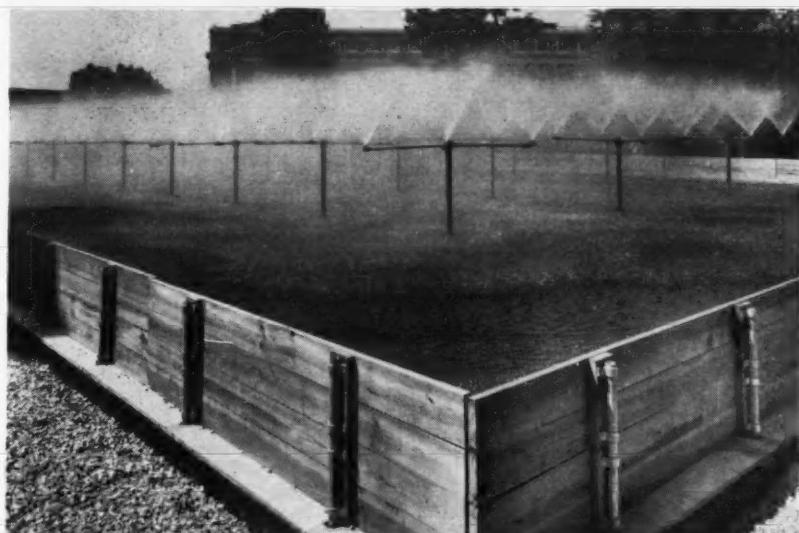
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Water Conservation Measure



As a water conservation measure, a 90 by 200-ft. spray pond was constructed on the grounds of the insurance company to cool condenser water for the 1,100-ton air conditioning system. Note the demountable wooden barrier to minimize wastage of water by wind and to keep out dust from crushed stone apron, on which a cement walk will be laid.

As part of the 1,100-ton conditioning plant at the Springfield, Mass. home offices of Massachusetts Mutual Life Insurance Co., 10 Carrier surface dehumidifiers such as shown here were installed by Buerkel & Co., Boston contractor. The installation will provide comfortable conditions for the 1,300 employees with resultant improved efficiency, and will avoid closing the offices on extremely humid summer days.



Zone Thermostats Allow for Master Control Of Temperatures In Eastern Installation

(Concluded from preceding page) spray pump, starting it again when the relative humidity falls below the instrument setting.

Controls for the four supply systems in the new east and west wings of the building are similar though not identical with those used for the six systems in the original structure.

Instead of having but one fresh air damper, for example, each system in the new wings has a minimum and a maximum fresh air damper. These, along with the recirculating damper and exhaust damper, are controlled by an electro-pneumatic valve wired to the supply fan motor circuit. This is so connected that when the supply fan is started, the minimum fresh air damper opens and the maximum fresh air, recirculating and exhaust dampers are connected for control by the dewpoint regulator.

Dewpoint temperature control is provided by an indicating temperature regulator with its thermostatic bulb located on the leaving side of the dehumidifier. It controls the automatic valves in the steam supply to the pre-heating coil, the maximum fresh air damper, recirculating

damper, exhaust damper, and three-way chilled water valve.

Control cycle is such that on a rise in temperature, the larger and smaller pre-heater valves are modulated to a closed position in sequence; next the modulated control of the maximum fresh air and exhaust damper from a closed to an open position as the recirculating damper travels from the open to closed position, and finally the gradual opening of the three-way chilled water valve from the 100% by-pass position to the 0% by-pass position.

On falling temperature, the reverse takes place. A safety low limit thermostat set for 35° F. is located near the return end of the pre-heating coil. It gradually opens the pre-heater valves if the leaving air falls below this temperature.

The systems for the wings also include controls for fan discharge temperature, return air, static pressure, economizer, and safety high limit humidity, as in the six systems for the original structure.

Filters employed in the various systems at the Massachusetts Mutual installation are the six-ply paper PL filters made by American Air Filter.

These are arranged in banks of various sizes—from four units wide by three high to nine units wide by five high.

Ten Carrier surface dehumidifiers are incorporated in the installation

as a whole, being designed to handle a total air load ranging from 9,240 c.f.m. to as high as 37,755 c.f.m. Sensible load is figured to range from 296,630 B.t.u./hr. for one system in the wings to a high of 1,175,799.

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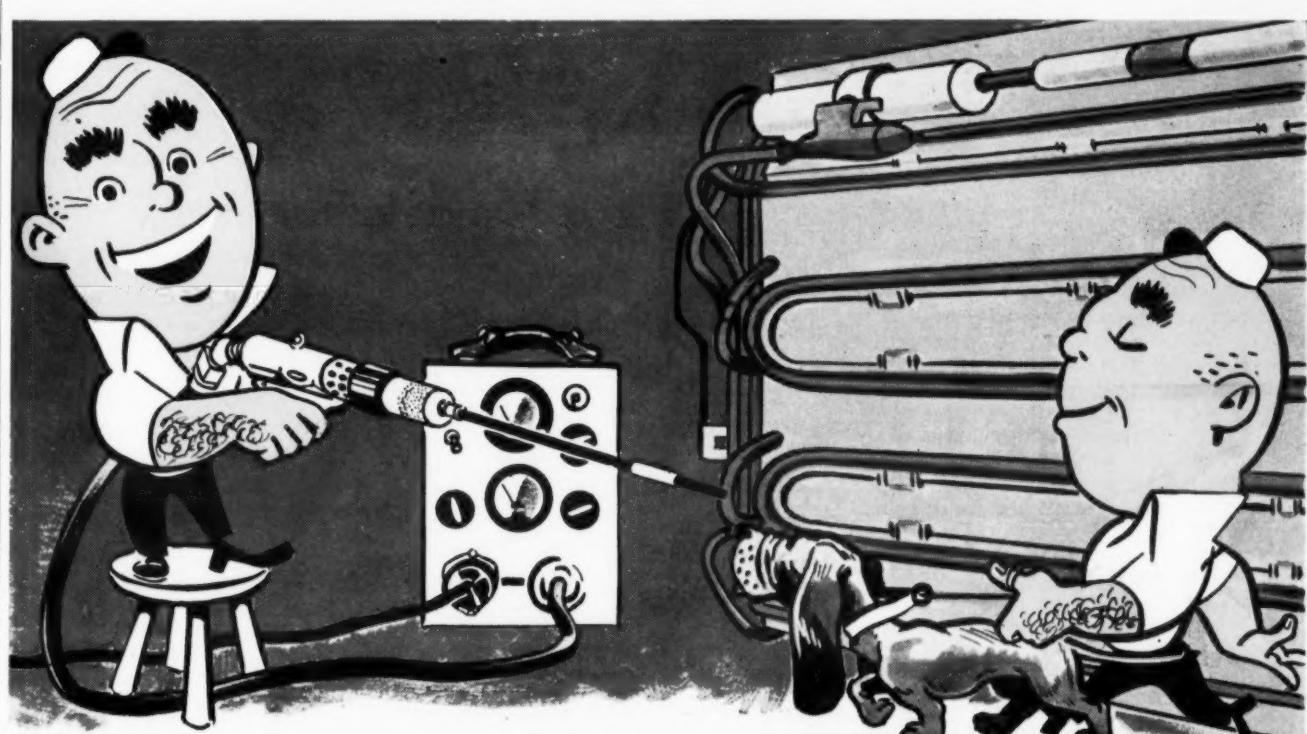
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Fazelbhoy Urges Relaxation of India's Ban On Importation of U. S. Equipment; Sets Up First Refrigeration, Air Conditioning School

BOMBAY, India — Relaxation of the ban on importation of U. S. air conditioning and refrigeration products into India was strongly urged by Ahmed A. Fazelbhoy in a speech marking his retirement as president of the Refrigeration and Air Conditioning Trades Association, Ltd., Bombay.

Addressing the first annual general meeting of the association, Fazelbhoy termed the ban "false economy" and warned of the "disastrous" consequences that might ensue if members of the trade were forced to use inferior equipment from soft currency countries.

At the same time, Fazelbhoy announced that he and his wife had established the Munir Memorial Trust to commemorate the memory of their only son, Munir, who died in an accident last year in New York where he was studying refrigeration engineering.

He said the trust will help establish a full-time institute to be called the Munir Fazelbhoy School of Refrigeration and Air Conditioning Engineering. It is planned to affiliate the school with the M. H. Saboo Siddik Institute of Bombay, he added.

(A ceremony opening the school—the first of its type in India—was recently held before a distinguished gathering. The ceremony was performed by M. C. Chagla, Chief Justice of Bombay, who predicted that "air conditioning is bound to play a big part in our lives." He also stressed that refrigeration could save the large quantities of the nation's food that are now being wasted.)

In another talk, Fazelbhoy said the non-profit school "one day may contribute to the improvement of the economy of this country. It may also perhaps help to make some desirable changes in the nation's food habits. All this will no doubt happen if the science of refrigeration is applied to preserve and process the many articles of foods of our daily consumption which are capable of processing and preservation, as many of them are."

(The school, he declared, "will fulfill a great national need for trained personnel for whom a very definite and large demand exists." He said it is expected that the school "will become the center to train personnel without distinction of caste or creed."

May Set Up 'Data Pool'

(In time, he said, the trustees hope to develop a refrigeration research center in connection with the school so trade and industry can be provided with valuable data. An attempt is now being made to collect

a full library of books which contain data on refrigeration engineering and application for student use, he added.

(The school now has a capacity enrollment of 14 students. It is planned to expand the institution as soon as possible.)

In discussing current import restrictions, Fazelbhoy emphasized that refrigeration and air conditioning equipment "is not a luxury line as is sometimes misconceived but the most vital necessity if we are to properly evaluate its benefits."

"I feel," he continued, "that this story must be told to the public and that the government should be made to appreciate the essential character of our trade in our national economy, in order that the throttling effect of the present restrictions on our trade and industry be relaxed or removed to as great an extent as practical."

'Irksome Restrictions'

"Just to give an idea of how irksome the restrictions are it may be stated that last year we were told to explore the possibilities to import refrigerators and supplies from Sterling countries, and yet one of our main items, viz., domestic refrigerator, was licensed for only 10% of the value of previous year's imports for the period July-December, 1949, even from Sterling countries.

"Since 1947 all imports from the U. S. A. were banned on the understanding that they would be allowed freely from soft currency areas, but this was not permitted except for very short time.

"This year there is relaxation up to 25% for the January-June period. This is better, but the total ban on import from the U. S. A., if we examine carefully, becomes an uneconomical problem.

"Superficially we are conserving hard currency but when we consider the fact that U. S. equipment and supplies are less expensive and of better quality than the equipment and supplies from Sterling areas, then in our opinion, it is better to issue even limited licenses from the U. S. and other dollar currency areas than to place a complete ban on its imports.

"To compensate for this dollar consumption the government could well restrict the import of other items from the U. S. A., and give licenses from the Sterling area where the quality of the products concerned are equally good.

"In the U. S. A. . . . the cost of production per unit is greatly lower as compared to any other country due to mass production, advanced technique and facilities, and

the best kind of raw material.

"The manufacturers there have far more experience which is longer than that of any other country in the manufacture of products such as refrigerators, water coolers, bottle coolers, commercial refrigeration equipment, air conditioning equipment, etc., and essential supplies such as 'Freon,' copper tubing, cooling coils, valves and fittings, etc.

"The United States has more inventions and improvements to its credit than any other country. For example take copper tubing alone. We do not know of any other country yet able to supply a product of proper flaring quality or having uniform annealing properties and being completely dehydrated and with clean interiors such as is essential for our installations.

Where U. S. Products Excell

"And take the case of 'Freon' refrigerant. It is absolutely necessary that the standard of purity and dryness must be the highest for the proper maintenance of valuable equipment. It is false economy to compel us to use any other product and invite breakdown of equipment if an alternative product of the same standard of purity and dryness is not available in soft currency areas.

"Now if we are asked to use such products from soft currency countries supplied by manufacturers who have not yet reached the required standard or whose qualities have not yet been proved completely satisfactory, consider how disastrous will be the change-over.

"Some of you may have had the experience of an installation breaking down because copper tubing was cracked by vibration or its joints became loose with the consequent loss of valuable refrigerant besides the loss of stored product. I have known valuable sealed systems becoming total losses as the connection would not stand up to normal shifting and transport over trucks and railways due to the poor annealing and flaring qualities of inferior tubing used in same.

"Consider the case of a large refrigeration or air conditioning plant in which precious food or produce is stored and the amount of valuable refrigerant that is charged. This refrigerant and food both can be all lost by the use of a piece of poor quality of tubing or a bad fitting costing only a fraction of building that plant.

"Consider the tremendous loss in spoilage of produce or foods and the economic loss by these breakdowns, and you will appreciate what poor economy it is to save some dollar exchange and force us to use products not tried-out.

"Now take the case of restrictions on the import of refrigerants, viz., 'Freon,' methyl chloride, or sulphur dioxide. They cannot be used for anything else except for cooling purposes. What is then the meaning of restricting their imports and in what manner their free import is going to use up any more foreign exchange passes one's understanding. . . ."

The speaker then mentioned "the possibility of our manufacturing in India some of the items which are now imported in large numbers and I hope you will give your thought to this aspect in the interest of our country's industrial progress.

"I feel that for the present it is not possible to make small parts and components such as valves, thermostats, copper tubing, condens-

ing units, and the innumerable fittings used by the industry. Even England, Australia, Canada, and European countries import many of these items from U. S. A.

"There is no doubt, however, that all types of domestic and commercial refrigerator cabinets and cooling towers, ice cans, and coils for ice making plants, and such other items in a fair and usable quality and standard can be made if attempted and we should turn now our attention for their production in India on a planned basis.

Making Liners Poses Problem

"The only difficulty I envisage in the manufacture of domestic cabinets is the inside porcelain liner but perhaps this problem can be met by the cooperative effort whereby all intending manufacturer of cabinets can combine to establish a ferro-enamelling plant to make these liners or consider a substitute such as stainless steel sheet, though I am not sure the stainless steel liners would be suitable for certain types of refrigerators.

"Here again the government should ensure that the hermetic and open-type condensing units are freely allowed to be imported from any country from which we can obtain the right type of equipment suitable to our specifications and that we should not be forced to use or make 'Pandora's Boxes' by equipping inferior systems which have yet to prove their trouble-free and lasting qualities for service for 10 to 15 years.

"I know of a case in which a large number of hermetic systems imported from a European country had all to be replaced. There is no certainty that such units unless they are from recognized makers will stand up to their normal life in this country.

"I hope our industrialists will turn their attention to manufacture and the government will no doubt give all assistance."

Here, Fazelbhoy referred to the present activities of many firms to make "cheap" ice fruit or candy making plants.

"I wonder," he said, "whether those in the trade realize the great harm that is being done to the health of the poor youngsters who are the large customers eating this so-called food product made under most unhygienic conditions from harmful ingredients such as coloring not meant as food colors, unfiltered, unboiled water, non-sterile straws and made in an environment where 'hygiene' is conspicuous by its absence.

"What is worse, it is generally hawked and sold at a temperature below freezing point and often eaten at that temperature. This should surely injure the teeth and tongue tissues of children.

"In all conscience I wish to appeal to my friends here that they as prime factors in the ice fruit business should exercise their duty and see that suitable conditions are provided by their customers, that information is supplied to them in the use of proper ingredients, and to cooperate with the municipal authorities to check the unsanitary ways or conditions in the manufacture and sale by hawkers and others in order that a food product which is not harmful to the health of our children is provided, and that the coloring matter used should conform in quality to standards allowed by legislation and defaulters should be severely penalized.

"You will all agree that money making at any price is not our aim and here again our association can evolve a good code for the manufacture and sale of ice fruit in the country and make suitable propaganda and recommendations."

Continuing, Fazelbhoy pointed out that "throughout the world ice cream is supposed to be the most nourishing food for the young and old alike. Yet here in this presidency we are, I believe, not allowed even the free use of condensed milk or milk powder for its manufacture.

"Pure milk is banned for certain reasons, but I hope the authorities concerned will re-consider this question again and if the supply of pure milk is improving as reported then it should be allowed in the preparation of ice cream or restrictions on the use of condensed milk, milk powder, and ice cream mix may be removed completely. This will be in line with most states in India where no such restrictions apply and ice cream is freely made even from fresh milk."

Turning to a review of some of the association's activities of the past year for the improvement in trading conditions, Fazelbhoy noted that representatives met the Collector of Customs, Bombay, for the proper classifications of items comprised in the commercial refrigerating appliances group.

"The customs schedule has no adequate classification in this respect, he stated, "and representations were also made to the Central Board of Revenue.

"Curiously any kind of cabinet type appliance whether it is a large reach-in refrigerator for hotels, bottle cooler for restaurants, or water cooler for a factory, and even a soda fountain, all are now assessed as 'domestic refrigerators' at the maximum rate of duty. The question of duty apart, surely with the advance and progress we have made in all directions the government should keep pace to improve the schedule and make it more representative. Consider the volume of imports that is now being made by our trade.

Though we have followed up our representations, I am sorry to say that still the classification remains as it is for all practical purposes, causing unnecessary confusion to all. There have been some instances where members have been unduly penalized by Customs in India for importing items definitely allowed by licenses which describe them as commercial refrigerators and yet the customs took some different view and valid imports were subject to heavy fines without any justification.

Fine BeingAppealed

"As an instance, I will mention that an import of three beverage coolers only imported against a license describing them as 'commercial refrigerators' was subjected to a fine of Rs. 7500/- This case is now under appeal with the Central Board of Revenue since last September and still a final decision is to be taken to refund the fine. . . .

"We are also now moving the proper authorities in the matter of applying gas cylinder rules in a manner which would not dislocate the maintenance and service work of the trade by irksome compulsory testing rules, especially for small cylinders of 5, 10, and 25 lbs. capacity. Some progress has been made and we hope to persuade the authorities to appreciate our problem and modify the present rules.

"Last year we had interviews with the Chief Controller of Imports. Our representative was sent to Delhi to join the deliberations for the planned development of refrigeration in India at the request of the Ministry of Agriculture and made valuable contribution to the important discussions on this subject. We also met on two occasions M. L. Khanna, refrigeration development engineer, Ministry of Agriculture, to discuss our trade problems. . . .

"During the year, 10 meetings of the committee were held and various subjects were discussed as affecting the trade. . . .

"It is also proposed that for broad questions affecting the trade, a joint council be formed with the cooperation of the Calcutta Association and other trade interests in India. Such a council will meet from time to time and wherever necessary make representations to the Central Government on behalf of the whole trade in India. . . ."

He urged members to extend their cooperation to the incoming president, Shri Harish Chandra Lall.

Air Cooled Movie Houses Still Called 'Unique' In Paraguay

ASUNCION, Paraguay — Called "unique" in Paraguay, an air conditioned motion-picture theater was recently opened here. It is the deluxe Cine Victoria, which seats 1,500.

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Available in four sizes and capacities in remote or portable models.



ARGENTINA FIRM MAKES MUSHROOM' INSTALLATION

General Electric
Tucuman 117 (R. 34)
Buenos Aires, Argentina
ditor:

With regards to your issue of June 3, of the use of packaged air conditioners in Mushroom Houses we would like to inform you that we also did the same down here in South America.

About eight years ago we installed hot air central system with centrifugal fan and ductwork, to hold 70° during the second period of growth; cultivation was not done during the summer, as during the third period temperatures should not go over 65° F.

Last year we installed four General Electric 5-hp. FD-50 store coolers in two large basements, extremely well insulated; these units hold 65° F. fine, but with a high relative humidity; therefore, we also added reheat with electric heaters.

The firm now works the year-round; the first and second period of growth is done in the mushroom house, the third in the basements, which in winter have a natural temperature of 60 to 65° F.; if it goes higher the air conditioners go to work.

Well water is used which is pumped to a tank on the roof and then piped to the units entering the condensers at approximately 72° F.; we use two units without ductwork for each basement, which measure 30 by 90 ft.

The heating plant consists of three General Electric type LA oil-fired boilers, which although intended mainly for home installations, have given us excellent results in various types of installations.

We have used G-E store coolers for chemical products, testing labs, drying rooms, and other non-comfort jobs with excellent results.

We hope you find some interest in the preceding facts; actually air conditioning is pretty well developed

in Buenos Aires, but very little in the rest of the country; the city has a large number of central station installations in apartment houses and private residences.

In ending we might add that your publication is enjoyed by all.

JUAN CAMPBELL,
Air Conditioning Department

EXHAUST FAN WILL BEAT WINDOW CONDENSATION

Cooperative Extension Work In Agriculture and Home Economics State of Connecticut

Editor:

I was interested in the window condensation problem that H. K. Folsum described in your July 10 issue. There is no doubt that the three suggestions pointed out by Mr. LaSalvia will do the trick; however, the double glass throughout the house is somewhat expensive. The condensation on the windows is only an indication of what is happening throughout the walls of the house also.

Putting on double glass is like taking an aspirin—it will remove the headache, but it will not eliminate the cause of the condensation. If there is no vaporproof barrier on the inside wall of the house, condensation will also be taking place inside of the wall, and, undoubtedly, will in time rot the sill of the house if it is of frame construction.

It would appear that the answer would be to use an exhaust fan to exhaust the air from the house and take in outside fresh air beginning as soon as the outside temperature reached the house temperature, probably early in the evening. The air should be exhausted from all of the rooms, and not just the room that the fan or air conditioning equipment is in. This would mean that all of the windows should be opened slightly and good circulation established throughout all of the rooms.

GEORGE W. CROWTHER,
Extension Agricultural Engineer

SEEKS FURTHER DATA ON CANDY COOLING

Equitable Equipment Co., Inc.
410 Camp St.
New Orleans, La.

Editor:

In AIR CONDITIONING & REFRIGERATION NEWS of June 12, 1950, there is an extremely interesting article on page 6 entitled "Keeping Candy Salable." In that particular article reference was made to the Refrigeration Research Foundation and their bulletin No. 50-2. Further reference was also made to the National Association of Refrigerated Warehouses and the National Confectioners Association.

J. T. KNIGHT, JR., Manager
Air Conditioning & Refrigeration Div.

Answer: In reply to your recent letter, the addresses you asked for are as follows:

The Refrigeration Research Foundation, Inc., 410 Mercantile Bldg., Berkeley, Calif.

National Association of Refrigerated Warehouses, Inc., 608 Tower Bldg., Washington 5, D. C.

National Confectioners Association, 1 N. LaSalle St., Chicago.

WHAT COMPANIES PRODUCE AUTO AIR CONDITIONERS?

Airko Air Conditioning Co.
Air Conditioning Installation & Commercial Refrigeration
1119 16th St.
Miami Beach, Fla.

Editor:

Recently we have learned that there are firms in the air conditioning and refrigeration industry that are working on the development and production of air conditioning units to be installed in passenger automobiles. We understand that these units are to be sold at approximately \$600 each.

If you have any information as to what the names are of any concerns engaged in this activity we would greatly appreciate your forwarding them to us.

J. H. SINGER,
Sales Manager

Answer:

One company that has actually brought out such a unit is Frigikar Corp., Box 686 Dallas, Tex. Another who has worked towards developing such a unit is Otto Tinky, 6264 Olive Blvd., St. Louis, Mo.

AIR CONDITIONING KEEPS INDIA'S HORSES IN TRIM

Carrier Corp.
New York City, N. Y.

Editor:

We were interested in the June 19 issue of AIR CONDITIONING & REFRIGERATION NEWS featuring the "bizarre" story of the new air conditioned stables for racing horses at the Singapore Turf Club.

Air conditioning for the purpose has been used for many years in hot humid countries in the Far East. As far back as 1938 Captain J. E. Barnes, Veterinary Surgeon of the Ceylon Turf Club air conditioned a stable with a Carrier room air conditioner. Horses placed in an air conditioned stable showed immediate improvement—two of these won against stiff competition, one being

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STEEL REFRIGERATORS
LIQUID RECEIVERS
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the three-year-old mare Koa, winning the Watagoda Plate at the Colombo track in September, 1938, after being air conditioned for 15 days.

Following this, air conditioning of race horse stables by means of a Carrier room air conditioner was installed in 1939 at the world-famous Mahalaxmi Racetrack in Bombay with equally satisfactory results. The question then arose as to whether railroad cars could be air conditioned to permit the comfortable transportation of racehorses from Bombay to Calcutta, but the outbreak of the war caused the abandonment of this project.

In early 1949, air conditioning for racehorses was installed at the Bukit Timah stables in British Malaya. After being placed in a Carrier air conditioned stall, the horse Natural, a victim of "dry sweating" won the Gold Cup at the Selangor Turf Club in Kuala Lumpur, equalling the course record.

The practice of air conditioning racing stables has been going on for some years. The same holds true for air conditioning of stables for milk cows.

FRANK J. RIDER,
Sales Promotion Manager

EVEN 9-YEAR-OLD UNITS EARN SALES FOR STORE

Hartleip Equipment Co.
921-925 E. Fourth St.
Waterloo, Iowa

Editor:

I was quite interested in noting in your Aug. 7 issue the article on the back page describing the air conditioning installation in the Waterloo Hardware Co., because our company made this installation.

It might be interesting to you to know that when these units were installed they were not new, but had been in constant use for nine years previous to this in our local newspaper office and were traded in on new units. This accounts for the low cost of \$2,000 Mr. Chickering mentioned in this article.

The article definitely offers a very powerful sales story. Naturally I expect to make this article a part of our sales kits and would like to supply all of our dealers with copies of the issue containing this article. I would appreciate it if you would send us c.o.d. about 25 copies of this issue.

WAYNE S. HARTLEIP

COMMERCIAL FIRMS LIKE 'HOW-WE-DO-IT' STORIES

F. D. Stella Products Co.
Commercial & Industrial
Refrigeration Sales & Service
4011 Fenkel Ave.
Detroit, Mich.

Editor:

I have just received the Aug. 7 issue of AIR CONDITIONING & REFRIGERATION NEWS and I appreciate the remarkable writeup that you have given the F. D. Stella Products Co.

Times, as they are now, I feel that this information can be of real value to the commercial refrigeration distributors who at one time or another are confronted with administration difficulties.

Only through your publication can this information be presented to the industry.

Again many thanks for your time and effort and you can be assured now, as in the past, your publication AIR CONDITIONING & REFRIGERATION NEWS is our weekly by-word.

F. D. STELLA,
President

WINE-DISPLAY ARTICLE SHOULD BE REPRINTED

Andy's Sales and Service
2801 Twelfth St., N. E.
Washington, D. C.

Editor:

In your Feb. 27, 1950, issue of AIR CONDITIONING & REFRIGERATION NEWS, you had an article on "Better Display of Refrigerated Wines in Stores New Showcase Increase Wine Sales 350% in Spite of Generally Slowing Market." This article was on page 6.

We would like to know if we can have 500 reprints of this column, and the cost of same. We wish to use it for advertising in our mailing list to the liquor stores.

A. MAZZARELLA

U. S. NEEDS BLUNT TALKERS

Somersworth, N. H.

Editor:

We wish that there were more editors that had the courage to talk bluntly and plainly to us (the common American people).

A. F. BRACKETT



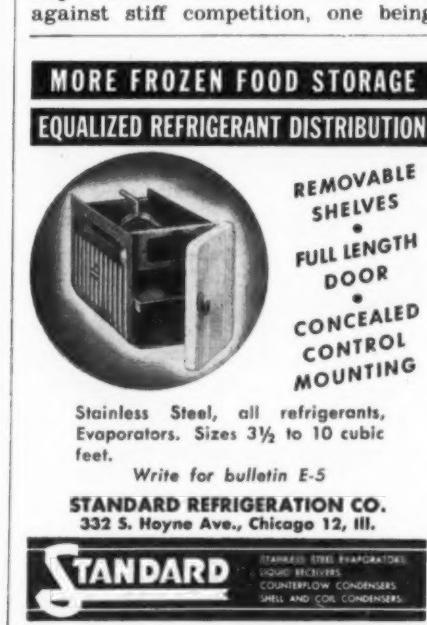
WORLD'S FOREMOST COOLING UNIT FOR WALK-INS

MODEL NO.	BTU AT 1° TD	CFM	SURFACE SQ. FT.	DIMENSIONS		
				H	W	D
260-HR	260	610	74.30	8"	33"	20 7/8"
347-HR	347	740	100.28	8"	33"	20 7/8"
433-HR	433	860	125.28	9 1/2"	33"	20 7/8"
540-HR	540	1052	153.22	9 1/2"	39"	23 7/8"
688-HR	688	1400	183.00	11"	39"	23 7/8"
867-HR	867	1800	231.75	12 1/2"	42"	25 3/8"

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Model PM-O (1/8 H. P. Static Condenser) for household refrigerators, etc. . . . another popular PARmetic sealed unit that can be serviced in the field

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cooler running; no pumping noise and many other outstanding PAR features. Get in on the new or replacement household market now! See your wholesaler for complete details on PARmetic Model PM-O.

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The Peerless Pie Plate Coil utilizes all of the cooling surface, fits in less space, is designed compactly for maximum efficiency.

This power packed round coil of improved evaporation design is ideal for such cooling applications as direct draw bars, soda fountains, reach-in refrigerators, etc.

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CAPACITY	DIMENSIONS	WEIGHT	Furnished w/ fan guard
MODEL NO. 82V 85 BTU/Hr/1° T. D.	6 1/4" D x 8 1/4" W x 9 1/2" H	7 1/4 # net	List Price \$44.50— Freight Allowed
MODEL NO. 83V 110 BTU/Hr/1° T. D.	7 3/4" D x 8 1/4" W x 9 1/2" H	9 # net	Furnished w/ fan guard List Price \$54.00— Freight Allowed
*MODEL NO. 103V 135 BTU/Hr/1° T. D.	7 3/4" D x 10 1/4" W x 11 1/4" H	11 1/2 # net	Furnished w/ fan guard List Price \$65.00— Freight Allowed

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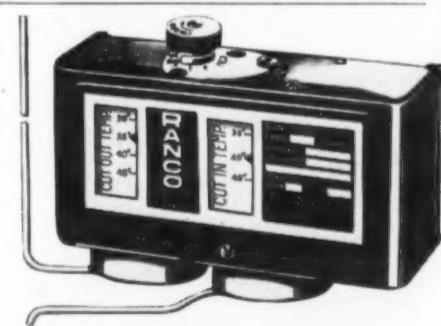
Completely automatic defrosting—regardless of weather, load conditions or cold location of the compressor—helps maintain uniform relative humidity with this Ranco "All-Weather"

Replacement Control. Eliminate expensive call-backs... increase your profits on every service job. Ask your wholesaler to show you the complete line of Ranco Replacement Controls.

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Servicing Tyler Equipment - 1

Open Cases Require Good Installation for Operating Success, Tyler Manual Stresses

Proper installation of commercial refrigeration equipment is all-important if successful operation and satisfied customers are to be obtained. To guide its distributors and installers in this vital phase of their activities, Tyler Fixture Corp. of Niles, Mich., has published a *Service Manual & Parts Catalog* prepared by Art Perez, service manager, who credits Foster Brandon with invaluable assistance.

While much of this relates directly to Tyler equipment, including HARDERfreez freezers, there is considerable basic and general information that will be helpful to anyone in the business. So with Tyler's permission the NEWS is publishing excerpts from the manual, beginning with this issue.

With the age of open refrigerated equipment, many new problems have arisen. There are problems of fabrication, problems of operation and so forth. Of prime importance to an installer of new equipment is the way in which old installation practices have been affected by the open types of cases.

This section should answer some of those unanswered questions which have arisen from time to time. Of

necessity, only the most common problems and questions can be discussed and then such discussion must take place under the assumption that all the fundamentals of refrigeration are already clearly understood.

MULTIPLES (A SAVING)

For many years, the commercial refrigerating industry has utilized multiples as a means of reducing costs in making installations. By connecting more than one refrigerated fixture to one condensing unit it is natural that both the cost of installation, as well as that of condensing units, will be somewhat reduced.

In actual practice, experience has proven that such installations are not only good from the cost standpoint but when such installations are properly planned and installed there are some advantages to be gained. Along with the advantages there are definite limitations and these must be considered and understood.

Since the controlling of multiples is the greatest over-all problem encountered with multiples, all factors concerning methods of controlling should be taken into consideration.

Control of temperature in a line up of cases can be accomplished by either pressurestat or thermostat. There are limitations to each means of controlling.

PRESSURE CONTROL

With this device, control of fixture temperature is obtained indirectly; the switch is actuated by the pressure in the low side of the refrigerating system so that the switch will open (stop compressor) at a pre-determined pressure in order to give the desired temperature in the case or cases. The switch closes (starts machine) when the pressure in the lower side has built up to the pre-determined point.

It has been customary with closed equipment to set the cut-in pressure on the switch at such a point which will allow complete defrosting of the coil or coils on every off-cycle of the machine (36 p.s.i. for "F-12"). Being that the heat loss in conventional equipment is small, the temperature does not rise excessively during this period when the coil or coils are defrosting, consequently there are no specific control or defrosting problems in connection with that type case. The pressure switch performs a dual function, controlling and defrosting.

Generally speaking, on open equipment due to high heat loss factors excessive warm up of the case or cases will result from allowing the coil or coils to defrost completely on every "off" cycle. Thus, it is neces-

sary to set the cut-in point on the pressure switch below a point where the coil will defrost.

CAUTION: The switch should never be set so that only partial defrosting of the coils will be allowed. Such partial defrosting will make it necessary to have a longer-than-normal defrosting cycle in order to clear the coil.

The cut-in pressure then should be set so that the cut-in point is such that the temperature of the coil is well below 32° (freezing point of water).

Maximum cut-in point for "F-12" should be 29 p.s.i.; for methyl, 21 to 20 p.s.i.

DEFROST SYSTEM NECESSARY

It becomes obvious since the coil does not rise above 32° during the normal refrigerating cycle that some means of defrosting must be pro-

vided. Such defrosting can be accomplished by timer (turning the compressor off periodically), hot gas, or other similar or related means.

Whatever means of defrosting is used, the length of defrost must be adequate to clear the coil completely of ice on each defrost period or proper refrigeration will not be had.

Under the subject of "Control" it is well to remember that with some types of double duty open cases an iced-up coil will show up in the form of freezing in the lower storage compartment with inadequate temperatures in the display compartment.

SEASONAL CHANGES

There is one inherent characteristic of controlling by pressurestat which must be borne in mind. The refrigeration requirements of a piece of equipment vary with seasonal changes. The amount of refrigeration delivered to a case depends in part on the temperature difference between the coil and the mean temperature of the refrigerated space, i.e., the greater the temperature difference the more refrigeration delivered, etc.

It then follows that it is necessary to change pressure settings (alter temperature difference) in order to maintain constant cabinet temperatures through seasonal, ambient, temperature changes.

(The above practice is necessary only when it is desired to maintain critical temperatures in the cases.)

LOW (MACHINE ROOM) TEMPERATURE

When any portion of the suction line or unit is subjected to temperatures which will give a corresponding pressure lower than the cut-in point in the pressure switch, it is advisable to use other means of control. Remember the pressure in the low side always corresponds to the "lowest" temperature in the low side.

(Continued on next page)

How To Control Open Cases In Multiple

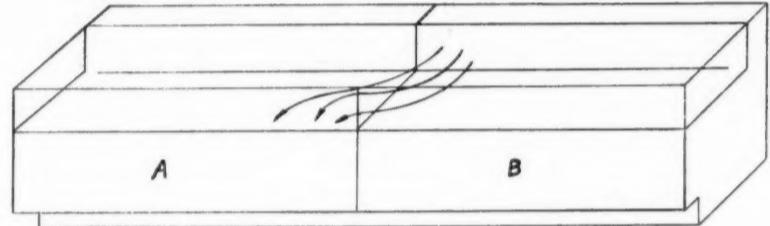


Fig. 1—Two open cases in line ("A" and "B") may result in cross-controlling if more than one compressor is used because refrigeration can overflow from one case to the other. Glass divider between cases will prevent this.

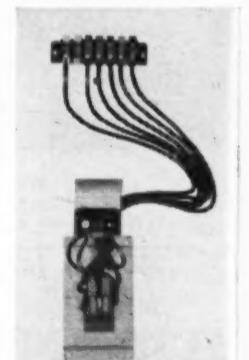
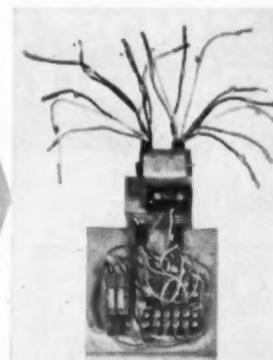
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wiring systems*
will reduce wiring costs
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EXAMPLE—
UNILECTRIC
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reduced 25 leads
to only 9.



*Comprising wire, junction blocks, sockets, terminals, switches, disconnects, power cords, etc., assembled into complete harnesses or groups of subassemblies as application requires.

BEFORE Intricate wiring with 25 leads in a bulky hard-to-assemble unit.

AFTER Simple UNILECTRIC Wiring System required only 9 leads, for drastic savings in wire, disconnects, terminal blocks, housing.

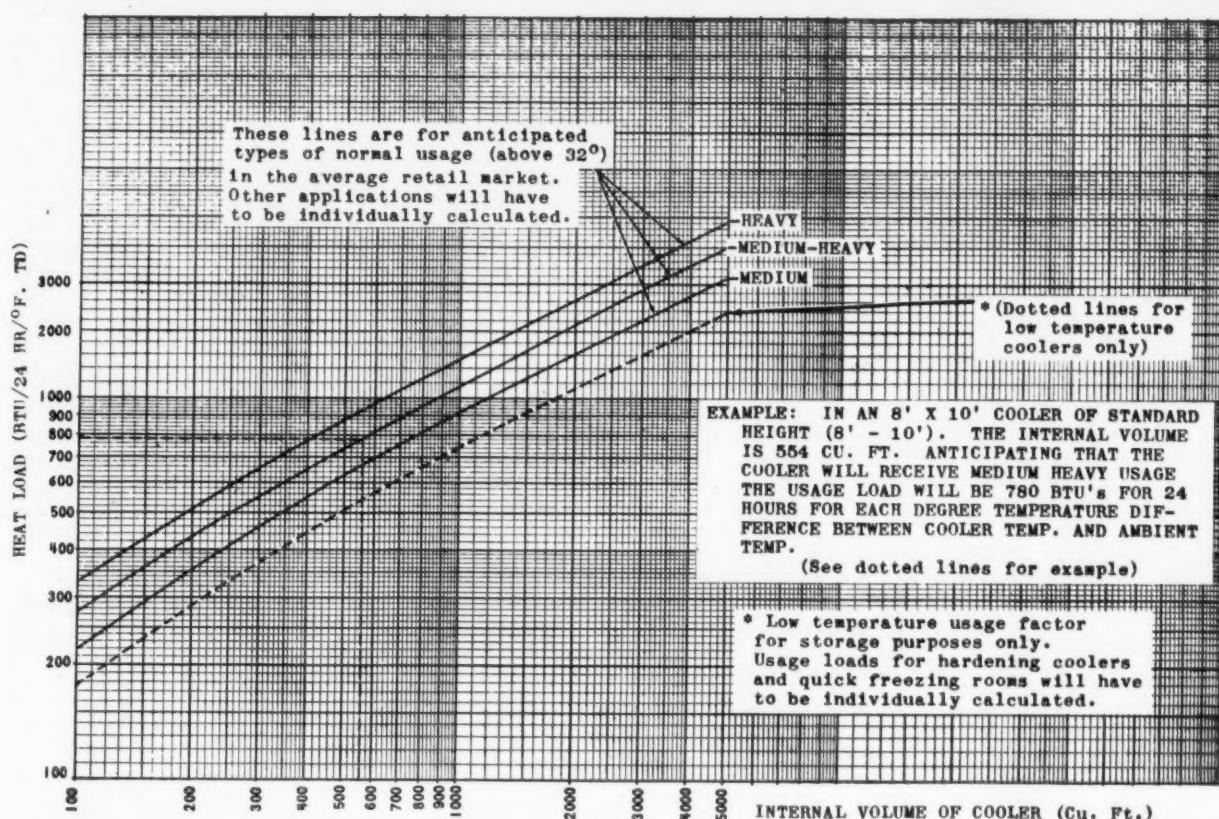
If you manufacture any other electrical equipment, UNILECTRIC Wiring Systems will reduce your cost on all of them. MAKE US PROVE THIS! Write or wire for Bulletin ACN.

UNITED MANUFACTURING & SERVICE CO.

405 S. Sixth Street, Milwaukee 4, Wisconsin, Tel. Broadway 2-0570

PIONEERS IN THE DEVELOPMENT OF APPROVED WIRING SYSTEMS AND COMPONENTS

Determining Service Load on Walk-In Cooler Simplified by Chart



The service load on a walk-in cooler subject to normal usage in the average retail market can readily be determined from this chart in Tyler's new service manual. Knowing the internal volume of the cooler, the point where this intersects the diagonal usage line shows the service load along the left side of the chart.

The dotted line is for low-temperature coolers employed for storage only, not hardening or freezing.

Problem of Controls for Open Multiple Cases Analyzed In Tyler's New Manual

(Continued from preceding page)

EXAMPLE

Suppose a meat case line-up is being installed (pressure setting 28 p.s.i. cut-in). Assuming it is necessary to run the suction lines outdoors, 28 p.s.i. pressure (on vapor pressure chart) corresponds to 29° F.

If under the above conditions the outdoor temperature drops below 29°, difficulty may be expected since the machine will not resume its "on cycle" once it has turned off until the pressure in the low side builds up to 28 p.s.i.

Other means of controlling should be used under the above conditions.

THERMOSTAT CONTROL

The use of the thermostat has been common enough as to make it seem unnecessary to go into any discussion of the principle of operation.

There are times when, due to low ambients around the machine or suction line, that a thermostat will have to be used in lieu of a pressure switch. In such instances the only

precaution necessary will be to make certain that the defrost time is of sufficient length to completely clear the coils of any ice which might result from partial defrosting during the normal refrigeration cycle.

Generally speaking, the pressure switch is the preferred means of controlling open equipment.

CROSS CONTROL

It is interesting to note that with continuous line-ups of equipment (both open and closed) that where more than one compressor is used in such line-ups that cross controlling might result. Such cross controlling is caused by an overflow of refrigeration from one case to another. For instance, in Fig. 1. below there are two endless cases, each case with its own control.

There is no possible way of individually controlling the temperatures of the individual cases which are connected to the one compressor. A balance in temperatures must be had by balancing equipment (similar equipment), or there will be no ade-

quate means of balancing temperatures in the equipment. Slight changes in temperatures between one case and another might be made by opening or closing the expansion valves in the cases, however, such procedure is not generally considered as satisfactory.

Controlling of the simple multiple may be obtained by either thermostat or pressurestat.

There is actually no limit to the number of cases which may be hooked up to one compressor except the limits which should be dictated by good refrigeration practices. If it is desired to maintain more than one temperature in the line-up of cases, then, of course, it would be advisable to connect more than one compressor to the line-up. The more cases that are hooked up to one compressor, the more difficulty may be experienced in maintaining equal temperatures throughout the entire line-up of cases.

Another factor which should limit the number of cases on one compressor is the fact that when a complete setup of refrigerated cases is connected to one compressor, failure of a major component of the system will mean complete loss of refrigeration. With more than one machine some refrigeration might still be had while repairs are affected to the system.

Assume that Case "A" has received adequate refrigeration and cycles "off" (either pressurestat or thermostat). Case "B" is not yet satisfied, the machine continues to run. Refrigerated air overflows from "B" to "A."

If a pressure switch is used to control temperatures then the (return to) running cycle of "A" will be delayed since pressure rise in the coil will be retarded by the refrigerated portion at the right end of that case.

In like manner, if a thermostat is used, overflowing refrigerated air may keep that feeler bulb satisfied when the actual over-all temperature of the case is not adequately low.

The result then is what may be termed as overshoot and undershoot, that is, overshooting and undershooting the desired temperatures—giving a greater than normal case temperature differential.

Where such a condition might be objectionable, it may be advisable to operate both cases on one compressor or to control by only one device.

DIVIDER PREVENTS CROSS-CONTROLS

Another possible solution is the use of a single glass divider between case "A" and "B." Such dividers will not necessarily destroy the continuity effect but will prevent such overflow and cross controlling.

The effect of such overflow on display case temperature is generally such that a 2° to 4° greater than normal temperature difference between cut-in and cut-out will result. Where critical temperatures are not important and additional temperature variation should not be a factor.

(To Be Continued)

Catalog Service Features Throw-Away Price Lists

AVON, Conn.—Individualized parts and equipment catalogs for refrigeration parts and supplies wholesalers of any size are now available with a new type of price list through the service provided by Edward Owen & Co. here.

Feature of these catalogs is a copyrighted price list, inexpensive enough to be discarded when it becomes out-of-date, and replaced with current lists by the publisher at cost as part of the publisher's service. It is thus claimed that the life of the catalog is extended indefinitely.

Selection of catalog contents can be made by wholesalers in 30 minutes from more than 300 up-to-date "library" pages maintained by the publisher—with changes or special pages easily made by a photographic process.

Sample catalogs and information may be obtained by writing William C. Schaller, manager, Catalog Division, Edward Owen & Co., Avon, Conn.

Freeman Heads Sales In Coolerator Midwest Area

DULUTH, Minn. — Harry N. Freeman, former Coolerator credit manager, has been appointed district sales manager, it was announced today by W. C. Conley, Jr., Coolerator general sales manager.

In his new position, Freeman will direct the sales of Coolerator electric ranges, refrigerators, and family-size freezers throughout the upper midwest territory. He will be headquartered in St. Paul, Minn.

Prior to becoming credit manager of Coolerator, Freeman was associated with the credit department of the Minneapolis-Honeywell Regulator Co. and was a lieutenant colonel in the Army during World War II.

Auto Dealer's Quarters Cooled

MEMPHIS, Tenn. — Automobile Sales Co., local De Soto-Plymouth dealer, has occupied its new and permanent home at 309 Union.

The air conditioned showroom has an unusually high ceiling with 14 ft. high plate glass windows in front and on each side.

With Every
ICE MAKER...
use Filtrine
HIGH EFFICIENCY
SAVE SERVICE —
remove TASTES, SOLIDS
FILTRINE MANUFACTURING COMPANY
Brooklyn 5 • New York

Serving THE REFRIGERATION INDUSTRY Since 1919

 Specify Acme
For Top Performance

 FREON SHELL AND TUBE CONDENSERS
DRY-EX WATER CHILLERS
HI-PEAK WATER COOLERS
FREON SHELL AND COIL CONDENSERS
HEAT EXCHANGERS OIL SEPARATORS
INDUCED DRAFT COOLING TOWERS*
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PIPE AND FIN COILS
AMMONIA CONDENSERS

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455 W. 19 St., N. Y. 19, WAtkins 4-4302
(Send for Traco's complete list of sensational bargains)

ANSUL OIL

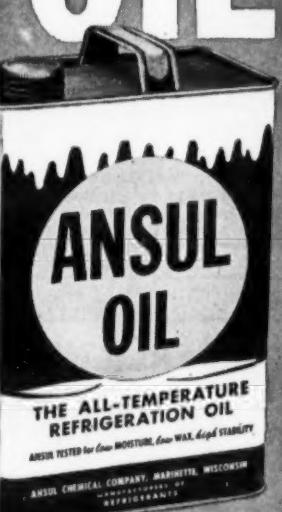
THE ALL-TEMPERATURE REFRIGERATION OIL

Recommended for air conditioning and refrigeration systems using standard refrigerants.

ANSUL OIL is an ALL-Temperature Refrigeration Oil which conforms to the rigid wax-free specifications established by Research. It will not separate wax when mixed with a refrigerant (under specified conditions) and subjected to temperatures as low as SEVENTY DEGREES BELOW ZERO (Fahrenheit).

ANSUL OIL has been machine tested for lubrication and wax-free characteristics in both high and low temperature installations. It is absolutely uniform... maintains high stability and has a low oxidation rate. It has proved suitable for ALL refrigerating systems using any of the standard refrigerants.

Ansul Research was first to recognize the problems resulting from low-temperature wax separation in oil-refrigerant mixtures. It realized the critical need for an oil which would not only lubricate and protect moving parts but would also eliminate the persistent troubles which were traced to wax-separation from oil-refrigerant mixtures.



ANSUL 150 OIL—The All-Temperature Refrigeration Oil—is sold by leading refrigeration wholesalers everywhere. (If you require a higher viscosity oil ask for ANSUL 300.)

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REFRIGERATION DIVISION, MARINETTE, WISCONSIN
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 EVERY TOOL YOU NEED
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Refrigeration Problems

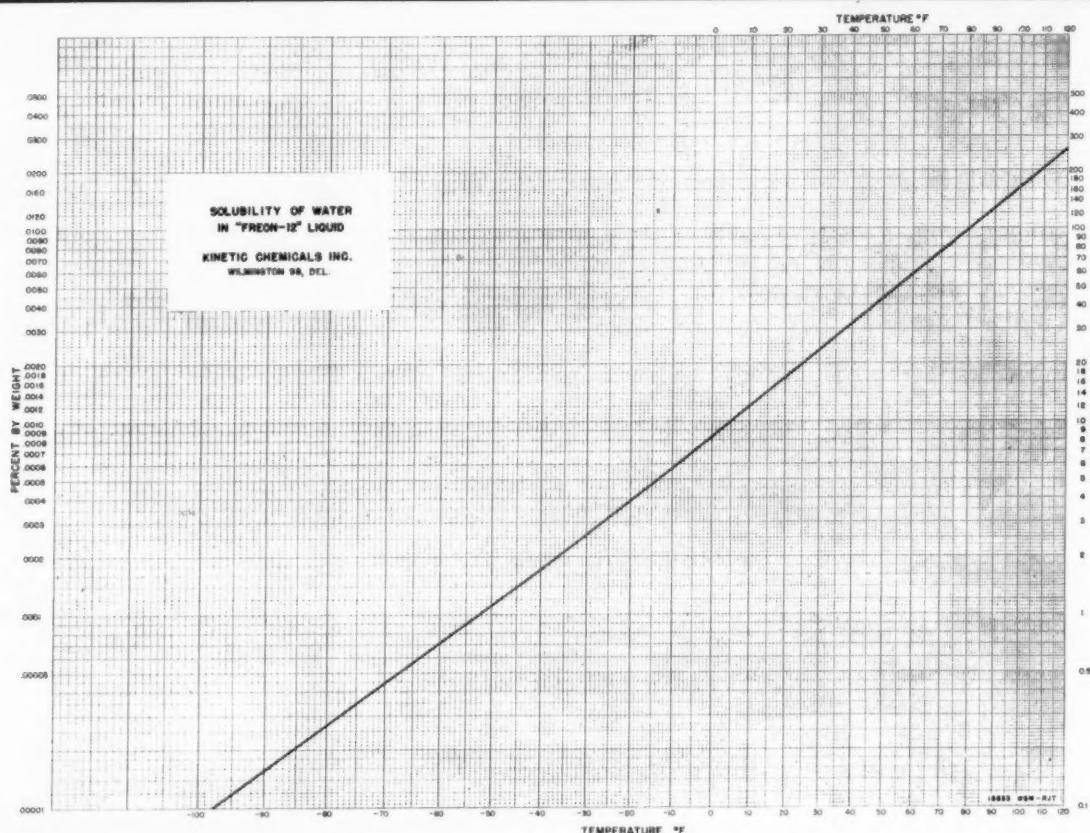
and their Solution

by Paul Reed

For Service and Installation Engineers



Paul Reed



Use of Desiccants In Refrigeration Systems

Since the first instalment (July 10 issue) of this series of articles on "Use of Desiccants In Refrigeration Systems," we have received several letters on the subject, including one from K. M. Newcum, president of Remco, Inc., and the author of the "Master Service Manuals," enclosing some data on desiccants. Newcum also enclosed a chart by Kinetic Chemicals on the solubility of water in "Freon-12." This is a better chart than the one we used in our instalment of July 17, which

showed "Freon-12" temperatures up to only 80° and the corresponding moisture that "Freon-12" can hold in solution.

The Kinetic chart, shown with this instalment, shows "Freon-12" up to 120° with the corresponding moisture solubility. This chart is much more useful, for liquid line temperatures often run above 80° and not infrequently up as high as 120°. Moreover, by using logarithmic graph paper the curve becomes almost a straight line. We are indebted to Ken Newcum and Kinetic Chemicals for this very useful chart.

HOW TO USE THE CHART

Plotted vertically (on the ordinate) are the percentages by weight of

maximum solubility of water in liquid "Freon-12." The temperatures of the liquid "Freon-12" are plotted horizontally (on the abscissa). The right-hand scale converts percentage of moisture by weight to parts per million (PPM). One part per million equals .0001 (1/10,000) of 1%.

As an example of the use of this chart, let us suppose that we have liquid "Freon-12" in the liquid line at 70°. This point on the curve on the vertical 70° line falls on the .0076% horizontal line, or 76 parts per million. This means that liquid "Freon-12" at 70° and under its normal saturation pressure of 70 p.s.i.g., can absorb .0076% moisture by weight. If there were any more moisture than that in the "Freon-12," it could not be absorbed by the "Freon-12" but would exist as free moisture.

Moisture absorbed by "Freon-12" does not freeze out as ice as long as the "Freon-12" remains at the same temperature. However, at the expansion valve or capillary tube, the "Freon-12" becomes colder—down to the evaporator temperature. If the evaporator is at 25° the liquid "Freon-12" will of course have to come down to 25° at the expansion valve.

Again referring to the chart, we find that at 25°, liquid "Freon-12" can hold in solution only about .002% or 20 PPM of its weight of moisture. The difference between 76 and 20 PPM, will be freed from solution in the "Freon-12" and will then exist as free water.

RELEASED MOISTURE FREEZES AT EXPANSION VALVE

Apparently it is not fully known whether the moisture released is entirely water. It does contain very slight, almost imperceptible amounts of acid, and it may contain some hydride. Whatever it is exactly, is of little interest to the service engineer, for this moisture released from the chilled liquid "Freon-12" does freeze into ice at the expansion valve. This has been amply proven both in the laboratory and in the field.

Some of the ice formed at the expansion valve orifice may be carried on into the evaporator simply by the velocity of the "Freon-12." But

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Write for Bulletin No. 56

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Milwaukee 10, Wis.



much of it will freeze on the valve needle and seat. The ice will continue to build up as more moisture is frozen out of the "Freon-12" passing through the valve, until finally it builds up enough to freeze the needle to the seat, and partially or entirely obstructs the passage between the needle and seat or the hole in the capillary tube, preventing the further flow of "Freon-12" into the evaporator.

Without "Freon-12" to furnish refrigeration, the evaporator pumps down and finally defrosts. Then the valve warms up, too, and the ice melts from the needle and seat, and the valve again functions until it freezes up again. All service engineers will recognize these as the typical symptoms of a frozen expansion valve due to moisture in the system.

The ice that melts from the valve needle and seat, during defrosting, passes as water into the evaporator where it may again freeze and lie as droplets of ice until a thorough defrost melts them. They can then get back to the compressor, condenser, and the liquid line to again cause trouble at the expansion valve.

GOOD DESICCANT REDUCES MOISTURE TO LOW PERCENTAGE

Suppose, however, that a dehydrator had been used in the liquid line just ahead of the expansion valve, and the amount of moisture had been reduced to .001% or 10 PPM. Again referring to the chart, we see that this corresponds to the maximum solubility of moisture in liquid "Freon-12" at 10°. When "Freon-12" in the liquid line, with a moisture content of only .001% comes to the 25° valve, no moisture will freeze out, so the system operates without freeze-up at the expansion valve or capillary tube.

Of course, if we kept running the machine and were able to get the evaporator below 10°, we then start to have expansion valve freeze-up or "stickiness," for below 10°, the "Freon-12" will start to give up some free moisture.

Again we repeat that "Freon-12" will hold very little moisture in solution at temperatures under 32°, and evaporator temperatures under 32° are necessary in refrigerating systems, except air conditioning systems

with evaporator normally held at 40° to 45°.

Also, again we want to emphasize what small amounts of moisture we are talking about. They are so small that they are measured in ten-thousandths of one per cent by weight, or parts per million.

From this chart we can see that the maximum amount of moisture that an ordinary finned, self-defrosting coil operated at an average coil temperature of about 25°, would be less than 20 parts per million, or .002%, or two thousandths of 1%.

If such a system held 10 lbs. of "Freon-12" in the liquid receiver and liquid line, those 10 lbs. can have *very little more than one drop of water* in them before freeze-up trouble starts.

In fact, from this chart, we can rather accurately determine just how much moisture a given amount of liquid "Freon-12" can have in it, without freeze-up trouble, if we know the evaporator temperature.

Twenty parts per million or .002% can also be expressed as .00002. If we multiply this by 10 lbs. we find that the 10 lbs. of "Freon-12" would be saturated at 25° with 10 x .00002 or .0002 lbs. of water. Any more than that would exist as free water and would freeze up at the 25° expansion valve.

1½ DROPS OF WATER SATURATE 10 LBS. OF LIQUID 'FREON-12' AT 25°

A pound of water equals 16 oz., and each ounce equals 480 standard drops, so a pound of water equals 16 x 480 or 7,680 drops of water. Therefore, .0002 lbs. equals .0002 x 7,680 or 1,536 drops. So 1½ drops of water will saturate 10 lbs. of "Freon-12" at 25°!

(To Be Continued)

Distributor's Air Conditioning Dept. Sales Headed by Millard

DALLAS—Bernard (Bud) Millard, newly appointed sales promotion manager of Marlin Associates, distributor of electrical appliances here, will serve also as sales manager of the Marlin air conditioning equipment department, according to an announcement by M. Margolin, president of the firm.

REFRIGERATION PROBLEMS

AND THEIR SOLUTION

By Paul Reed

Handy, practical, reference information for the refrigeration service engineer, "Refrigeration Problems and Their Solution" is written and illustrated so as to be of interest to salesmen, users, and others who want a fuller knowledge of refrigeration.

You'll like the way Paul Reed has organized his material... and he writes clearly, making these books easy to understand and a pleasure to read. And because Paul Reed has such a wealth of practical knowledge of refrigeration, and years of experience behind him, you'll find reading these books the next best thing to a person-to-person chat about your refrigeration problems.

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BELT-DRIVEN OR HERMETICS
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Write, Phone Or Call For
IMMEDIATE ACTION
TRACO Industrial Corp.
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(Send for TRACO's complete list
of sensational bargains)

Nema Firms Sell 3,062,289 Refrigerators In 6 Mos.

Summary for June and First Six Months, 1950*
Complete Refrigerators Only—Sales by Sizes—Units

JUNE (14 Companies)

Sizes	Domestic (48 States and D. C.)	Canadian	Other Foreign	Total
Less than 4 cu. ft....	252	...	252	252
4 cu. ft.....	4,229	...	286	4,515
5 cu. ft.....
6 cu. ft.....	63,774	144	4,088	68,006
7 cu. ft.....	53,539	95	2,735	56,369
8 cu. ft.....	173,895	80	4,392	178,367
9 cu. ft.....	137,057	129	1,305	138,491
10 cu. ft.....	38,344	218	783	39,345
11 and 12 cu. ft....	61,531	...	941	62,472
13 cu. ft. and up....	1,868	...	55	1,923
Total	534,489	666	14,585	549,740

FIRST SIX MONTHS (14-13 Companies)

Sizes	Domestic (48 States and D. C.)	Canadian	Other Foreign	Total
1 Less than 4 cu. ft....	1,137	...	244	1,381
2 4 cu. ft.....	20,407	...	1,922	22,329
3 5 cu. ft.....	94	...	2	96
4 6 cu. ft.....	331,494	146	19,874	351,514
5 7 cu. ft.....	313,831	95	14,588	328,514
6 8 cu. ft.....	1,076,325	80	27,151	1,103,556
7 9 cu. ft.....	655,633	129	7,407	663,169
8 10 cu. ft.....	235,590	218	4,318	240,126
9 11 and 12 cu. ft....	336,230	4	4,119	340,353
10 13 cu. ft. and up....	11,196	...	55	11,251
Total	2,981,937	672	79,680	3,062,289

Participating companies: Admiral Corp.; Avo Mfg. Corp.; The Coolerator Co.; Frigidaire Div., General Motors Corp.; General Electric Co.; Gibson Refrigerator Co.; Hotpoint, Inc.; International Harvester Co.; Kelvinator Div., Nash-Kelvinator Corp.; A. J. Lindemann & Hoverson Co. (in 2-1-50); Norge Div., Borg-Warner Corp.; Sanitary Refrigerator Co.; Seeger Refrigerator Co.; Westinghouse Electric Corp.

Refrigerator Sales--

(Concluded from Page 1, Column 2)
fell just short of sales for the full year 1947. These totaled 3,193,749.

The June figure of 549,740 marked the fourth straight month that refrigerator sales by these firms have exceeded the half-million mark. Biggest month was March, when 562,293 units were sold.

June sales were slightly higher than in May. However, it was noted that the more popular sizes—7 through 10 cu. ft.—dropped off slightly while units of 6 cu. ft. and below, and 11 cu. ft. and above gained a little.

June sales were also bolstered by 666 units sold to Canada following the relaxation of import restrictions by that country. Other foreign sales also picked up about 200 units over May.

Though foreign sales for the six months were up over last year, the gain was slight compared to the upsurge in this country. A total of 80,352 units was sold abroad this year as compared with 76,719 last year.

S.C. Highway Dept. Bldg. Cooled

COLUMBIA, S. C.—A five-story, completely air conditioned office building for the South Carolina Highway Department will begin rising here in November. It will cost \$1,500,000.

WE WILL BUY!

EXPANSION VALVES
SOLENOID VALVES, ALL TYPES
REF. FITTINGS and PARTS
ANY QUANTITIES • MUST BE NEW
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**Hotpoint Refrigerator
Plant May Be Ready To
Produce by Aug., 1951**

CHICAGO—Started March 1, construction work on the new Hotpoint, Inc. refrigerator factory at 54th Ave. and 16th St., Cicero, is approximately one third completed, it was announced by J. J. Nance, president.

While construction will be finished in October, tooling and machine installations will require almost another year. First production employment for an initial force of 1,000 will start in August, 1951. Nance said plant capacity will be about 500,000 refrigerators annually.

The building will front 600 ft. on 16th St., and approximately the same distance on 54th Ave., paralleling the company's new range plant which is located on a 21-acre site.

Because of the height of specially-designed presses, the main manufacturing building will be 40 ft. high. The factory will be designated as plant No. 8, with the other seven located in Chicago, Milwaukee, Chicago Heights, and Cicero.

Other products being made in these plants include electric ranges, electric water heaters, automatic dishwashers, disposals, automatic washers, and commercial cooking equipment.

New Fla. Supermarket Cooled

JACKSONVILLE, Fla.—Setzer's new supermarket, corner of Florida Ave. and Church St., held its formal opening recently. The interior has been air conditioned.

Westinghouse Raises Prices from \$1 to \$30 on 13 Models In Its 1951 Radio and Television Line

SUNBURY, Pa.—Price increases ranging from \$10 to \$30 on eight models in the 1951 television line and increases of one dollar to \$30 on five radio models were announced Aug. 15 by the Westinghouse Television and Radio Division.

F. M. Sloan, division manager, who made the announcement said increased production expense including sharp rises in certain component

costs had made the price adjustment necessary but an across-the-board increase had been avoided by individual analysis of the exact costs incurred in manufacturing each model. In determining the new prices, the specific increase was applied to each model, the manager pointed out.

Television sets included in the price change and the old and new prices are:

Model	Picture Tube	Cabinet	Old Price	New Price
624T16	16-in. rect.	Table	\$199.95	\$219.95
624TB16	16-in. rect.	Console	229.95	249.95
626T16	16-in. rect.	Table	239.95	249.95
627K16	16-in. round	Console	299.95	329.95
628K16	16-in. round	Console	279.95	299.95
629K16	16-in. round	Console	299.95	325.00
633C17	17-in. rect.	Console (comb.)	449.95	469.95
634C17	17-in. rect.	Console (comb.)	469.95	489.95

Merritt & Andree To Sell Essick 'Washed Air' Coolers

CHICAGO—Essick Mfg. Co., Los Angeles, has appointed the firm of Merritt & Andree as factory representative for its line of "washed air window mounting room coolers" in northern Illinois and southern Wisconsin, according to Kenneth H. Kottick, sales manager for the Essick Air Conditioning Division.

H. S. Mulhollen, vice president and general sales manager for Essick, noted that the Chicago firm's appointment marks further expansion of distribution in the east and middlewest.

The line features three self-contained window mounting "pour-in" coolers that can be used as ventilators only, to bring in fresh air without cooling, or as room cooling units with separate controls for each. Equipped with window sealers and designed to cool one average size room, the Essick units are housed in a baked enamel finished case.

June Factory Washer Sales Volume 25% Over Last Year

CHICAGO—Factory sales of household washers in June rose 6.8% above May and 25% over June a year ago, the American Home Laundry Manufacturers Association reported.

June sales amounted to 325,217 units, compared with 304,640 in the preceding month and 260,000 in June, 1949.

Sales of ironers totaled 27,100 units, a decrease of 1.09% from the 27,400 moved in May but an increase of 28.4% over the 21,100 sold during June a year ago.

Drier sales aggregated 20,568 units, against 16,122 in May, an increase of 27.6%, and 2,496 in June, 1949, an increase of 724%.

Booklet on Humidity Published

NEW YORK CITY—A booklet entitled "A Few Facts About Dehumidification for Industry" has been published recently by the Abbeon Supply Co. here.

The booklet considers the problem of too high a humidity, its causes, the problems it brings, and what can be done to control it.

Copies are available free of charge by writing to Abbeon Supply Co. at 58-10 41st Drive, Woodside, New York City.

New Ariz. Thor Distributor

PHOENIX, Ariz.—Appointment of Fannin's Gas & Equipment Co. here as distributor of Thor appliances in Arizona was announced recently by John E. Gunderson, western area manager for Thor Corp.

Electric Range, Water Heater Sales For June Set Record In Chattanooga

CHATTANOOGA, Tenn.—Record sales of electric ranges and water heaters were scored by Chattanooga dealers during June, reports from the Electric Power Board of Chattanooga indicated recently.

Home freezer sales equalled the record of 78 units set in May and refrigerators fell just short of the 1,447-unit record established in the same month.

Home freezers tripled their sales of June, 1949, while water heater sales were up 165% and clothes drier sales doubled. Ironer sales rose 84% over June of last year, ranges 64%, refrigerators 62%, dishwashers 57%, and clothes washers 11%.

In relation to last year's sales, vacuum cleaners were off 37% and garbage disposers 25%.

Though May of this year was regarded as a booming sales month in major appliances, refrigerators, home freezers, and clothes washers approximately equalled their May volumes and several appliances exceeded them. Ranges were up 20%, water heaters 16%, dishwashers 37%, and dryers 33%.

Ironer sales were down 25% from May, vacuum cleaners 7%, and garbage disposers 40%.

Unit sales and dollar volume, with average unit price for June were as follows:

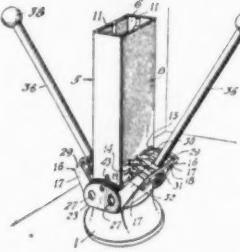
Appliance	Unit Sales	Average Unit Price	Total Sales Value
Refrigerators	1,443	\$279.75	\$403,679.25
Home Freezers	78	403.95	\$31,508.10
Ranges	843	249.50	\$210,328.50
Water Heaters	507	119.50	\$60,586.50
Ironers	35	174.95	\$6,123.25
Vacuum Cleaners	431	89.46	\$38,557.26
Clothes Washers	644	152.34	\$98,106.96
Clothes Dryers	20	212.48	\$4,249.60
Dishwashers	22	375.00	\$8,250.00
Garbage Disposers	3	122.97	\$368.90
Air Conditioning Units	32	1,730.47	\$55,375.04
Refrigerators, Comm.	5	490.28	\$2,451.41
Ice Cream Cabinets	23	248.91	\$5,725.00
Freezing Cabinets	2	542.50	\$1,085.00
Beverage Coolers	49	271.71	\$13,314.00
Ice Makers, Water Coolers	8	939.50	\$7,516.03

Pinnacle . . .</b

PATENTS

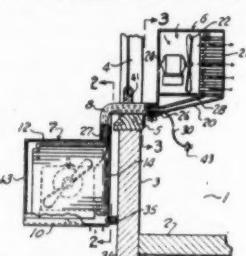
Week of March 14 (Continued)

2,500,828. ICE CUBE BREAKER. Alexander F. Jackson, East Orange, N. J. Application Jan. 30, 1947, Serial No. 725,403. 3 Claims. (Cl. 241-266.)



1. An ice cube breaker comprising a tubular magazine for holding ice cubes and having a plurality of rows of openings in and spaced longitudinally of opposed walls thereof, a pair of inverted U-shaped handle yoke members pivotally mounted in opposed relation on space parallel axes on the outside of the magazine, each handle yoke member having a disk-like portion on each of its arms intergeared with the juxtaposed disk-like portion of the other yoke member, a plurality of blade members on each handle yoke member at different distances from said axes of the pivotal mounting of said handle yoke member and each provided with a row of approximately flat projecting teeth for each row of openings disposed with their larger dimensions transverse of the direction of the length of said tubular magazine, so that said handle yoke members will be synchronously pivotally actuated by and upon swinging movement of either thereof and said teeth are moved in an arc through the respective openings and into the interior of the magazine for cutting the ice cubes therein.

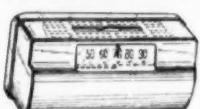
2,500,852. ROOM COOLER. Roland H. Money, Lima, Ohio, assignor to Artkraft Mfg. Corp., Lima, Ohio, a corporation of Ohio. Application Jan. 22, 1949, Serial No. 72,112. 9 Claims. (Cl. 62-140.)



1. A room cooler adapted for mounting on the sill of a window, comprising a frame adapted to set upon the window sill and a mechanical refrigeration apparatus mounted on said frame comprising an evaporator mounted on the end of said frame adapted to be positioned on the inner side of the window, a compressor and condenser mounted on the end of the frame adapted to be positioned on the outer side of the window, a suction line connecting the evaporator and the compressor, and a liquid refrigerant line connecting the condenser and evaporator whereby the heat which is taken up by the refrigerant in the evaporator is dissipated into the outside atmosphere by the condenser, said frame including a tubular load bearing member having a substantially horizontal portion adapted to rest upon the window sill and a downwardly projecting portion adapted for positioning on the outer side of the window sill, a drip pan below the evaporator and having a discharge end communicating with said tubular frame member whereby the condensation from the evaporator frame member is discharged on the outer flows from the drip pan through the tubular side of the window.

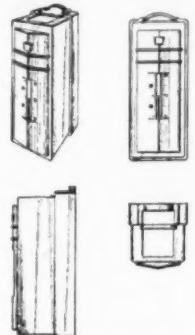
DESIGNS

157,687. CONTROL INSTRUMENT CASE. Carl G. Kronmiller, Edina, Minn., assignor to Minneapolis-Honeywell Regulator Co., Minneapolis, Minn.



The ornamental design for a control instrument casing, substantially as shown and described.

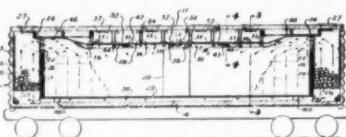
157,685. THERMOSTAT. Hugh Kelly, Milwaukee, Wis., assignor to Perflex Corp., Milwaukee, Wis., a corporation of Wisconsin. Application Dec. 27, 1948, Serial No. 150,367. Term of patent 14 years. (Cl. D52-7.)



The ornamental design for a thermostat, substantially as shown.

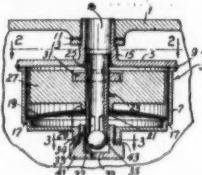
Week of March 21

2,501,141. METHOD AND APPARATUS FOR REFRIGERATING RAILROAD CARS. Kenneth V. Plummer, San Francisco, Calif., and Robert D. Pike, Greenwich, Conn.; said Plummer assignor to Pike. Application April 19, 1948, Serial No. 21,976. 14 Claims. (Cl. 62-24.)



1. The method of refrigerating a railroad car which comprises, withdrawing air from the upper portion of the storage space of the car, chilling a predetermined portion of the air as it is withdrawn by a low temperature refrigerant, mixing said chilled air with the balance of the non-chilled air withdrawn from the storage space, passing the mixed air in intimate heat exchange relation with water ice, and circulating the mixed air to the storage space of the car.

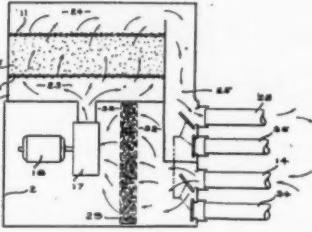
2,501,185. TEMPERATURE AND PRESSURE OPERATED VALVE. John G. Moorhead, Attleboro, Mass., assignor to Metals & Controls Corp., Attleboro, Mass., a corporation of Massachusetts. Application Dec. 7, 1945, Serial No. 633,372. 9 Claims. (Cl. 236-92.)



1. A relief valve comprising a casing having an outlet and adapted to be attached to the wall of a heated pressure vessel, said casing having a valve port communicating interiorly with the vessel and exteriorly with said outlet, a valve, a hollow stem supporting the valve and having openings in the stem behind the valve, means biasing said stem toward the position to seat the valve at the port, a snap-acting thermostatic disc having a central opening freely accommodating the stem, means supporting the edge of said disc within the casing, said disc in normal cool position being bowed away from said port, a shoulder associated with the stem adapted to be engaged by the thermostatic disc when in cool position to unseat the valve, said thermostatic disc being movable with a snap action to a position of opposite curvature in which the valve is seated to close the port under its bias without further cooperation between the disc and the shoulder until said disc returns to its normal cool position of curvature to engage the shoulder and move the stem against its bias to reopen said valve.

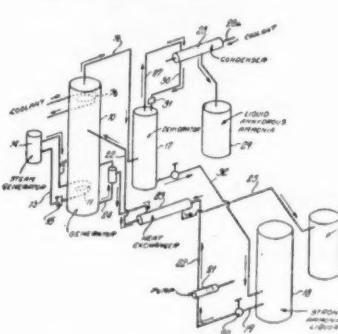
2,501,280. PACKAGE DEHUMIDIFIER. William Wallace Kemp and Hartwig Millard Hanson, Baltimore, Md., assignors to The C. M. Kemp Mfg. Co., Baltimore, Md., a corporation of Maryland. Application July 27, 1945, Serial No. 608,284. 4 Claims. (Cl. 73-335.)

tion June 22, 1946, Serial No. 678,694. 8 Claims. (Cl. 183-45.)



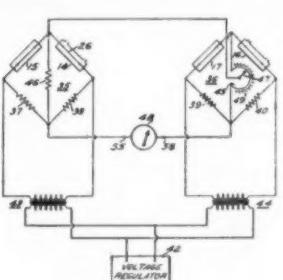
1. A dehumidifier comprising a closed container divided into two communicating chambers, a removable panel constituting a portion of the container wall of one of said chambers, the panel having therein an air drying inlet and outlet and a reactivation air inlet and outlet, a fan and a desiccant bed within the container, each in one of said chambers, a reactivation heater adjacent the desiccant bed, flow directing means within the container including a partition directing air moved by the fan between said inlets and outlets and through said bed, in the same direction in drying and reactivation cycles, both said inlets being on one side of the partition and the outlets on the other, the partition extending to the panel, said flow directing means by-passing one of said chambers in directing air between the inlets and outlets, means to operate the fan and heater, valves controlling said inlets and outlets, means interconnecting all valves to open the reactivation inlet and outlet valves and vice-versa respectively automatically with starting and stopping of the operation of the heater.

2,501,326. AMMONIA DISTILLATION SYSTEM. Forrest E. Gilmore, Bartlesville, Okla., assignor, by mesne assignments, to Frigid Transport Co., Inc., New York, N. Y., a corporation of New York. Application July 19, 1945, Serial No. 605,901. 1 Claim. (Cl. 202-40.)



A method for producing substantially anhydrous ammonia from strong ammonia liquor, including the steps of introducing heated water vapor to a first tower, introducing the strong ammonia liquor to the first tower above the location where the heated water vapor is introduced thereto, the strong ammonia liquor being introduced to the first tower below its top portion, a cooling zone in the top portion to condense water vapor from the ammonia gas therein and produce an ammonia liquor down flow therein, removing weak ammonia liquor from the lower portion of the first tower when this liquor accumulates therein and storing this liquor for use when needed, removing ammonia gas from the upper portion of the first tower when it is generated from the strong liquor and introducing this ammonia gas to a second tower, introducing substantially anhydrous liquid ammonia to the second tower above the location where the ammonia gas is introduced thereto to dehydrate the gas, removing strong ammonia liquor from the lower portion of the second tower when this liquor accumulates therein and keeping it separated from the stored weak ammonia liquor, recirculating at least a part of said strong ammonia liquor removed from the second tower and adding it to the strong ammonia liquor feed of the first tower and removing ammonia gas from the upper portion of the second tower as the desired substantially anhydrous ammonia, said substantially anhydrous ammonia gas removed from the second tower being condensed to liquid ammonia of which a portion is returned to the second tower to provide said introduction of substantially anhydrous liquid ammonia thereto and the balance is stored for use as substantially anhydrous ammonia.

2,501,377. RELATIVE HUMIDITY MEASURING SYSTEM. Robert H. Cherry, Glenside, Pa., assignor to Leeds and Northrup Co., Philadelphia, Pa., a corporation of Pennsylvania. Application July 27, 1945, Serial No. 608,284. 4 Claims. (Cl. 73-335.)



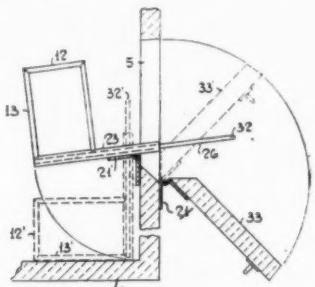
1. A system for determining the relative humidity of an atmosphere, comprising a balanceable network including means for unbalancing the network in response to deviation in the absolute humidity of said atmosphere from a predetermined magnitude, a second balanceable network having means therein for unbalancing it by an amount related to the deviation of the maximum possible absolute humidity of the atmosphere at the temperature of said atmosphere from a predetermined magnitude, said networks having components therein for producing balance thereof when said unbalancing means are simultaneously subjected to zero absolute humidity, each of said balanceable networks producing potential differences which vary in like manner with like changes in absolute humidity, and a circuit interconnecting said net-

works and including an impedance for determining said relative humidity by deriving from said second network a fractional potential difference equal to that produced by unbalance of said first-named network.

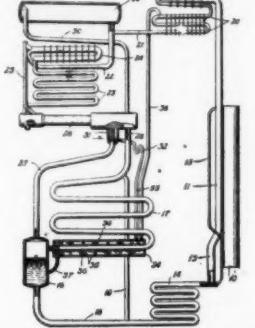
2,501,400. METHOD OF FOOD PREPARATION. Laurence K. Marshall, Cambridge, Mass., assignor to Raytheon Mfg. Co., Newton, Mass., a corporation of Delaware. No Drawing. Application Dec. 27, 1948, Serial No. 135,300. 11 Claims. (Cl. 99-221.)

1. In a method of preparing food, the steps of pre-cooking the raw foodstuff, freezing the pre-cooked food, and subjecting the frozen pre-cooked food to microwave energy to heat it to eating temperature.

2,501,404. COOLED KEG HOLDER. Oscar Muller, Newark, N. J. Application Nov. 8, 1947, Serial No. 734,888. 2 Claims. (Cl. 312-185.)



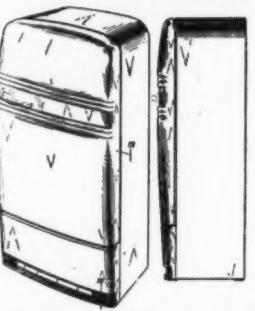
cuit for absorption liquid, a gas circuit including an evaporator and absorber, a still including a boiler in said absorption liquid circuit and a condenser connected to deliver liquid to said evapora-



tor, an auxiliary evaporator connected to receive excess liquid from said first evaporator and deliver vapor to said condenser, said auxiliary evaporator being arranged to cool at least a part of said absorber, the vapor delivered from said auxiliary evaporator to said condenser being liquefied in the latter for reintroduction to said evaporator.

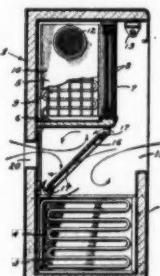
DESIGNS

157,768. REFRIGERATOR CABINET. John M. Little, Toledo, Ohio, assignor to Westinghouse Electric Corp., a corporation of Pennsylvania.



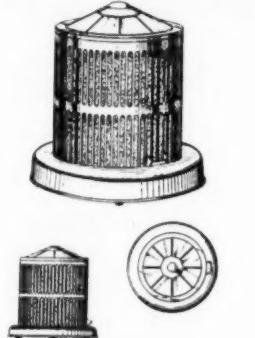
1. In a beverage dispenser comprising a cooled cabinet for holding at least one beverage container, at least one raised door frame, a door in said frame through which the container is introduced, the improvement comprising tubular members vertically disposed in the doorway and hinged at the bottom behind said door, smaller rod members telescoping into the upper ends of the tubular members and capable of extending out and to the floor to form an inclined plane for rolling containers thereon, and a cross member connecting the upper ends of said smaller rod members and serving as a handle.

2,501,459. FROZEN FOODS AND DAIRY PRODUCTS REFRIGERATOR. Virgil P. Warren, II, Atlanta, Ga., assignor to The Warren Co., Inc., Atlanta, Ga., a corporation of Georgia. Application Aug. 16, 1948, Serial No. 44,424. 9 Claims. (Cl. 62-89.6.)



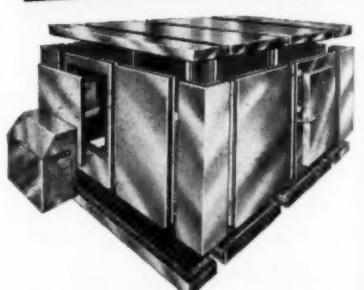
The ornamental design for a refrigerator cabinet, substantially as shown and described.

157,824. PORTABLE AIR COOLING DEVICE. Cornelius B. Wright, Fort Worth, Tex., assignor to Southern Air Conditioning Mfg. Co., a partnership. Application March 18, 1949, Serial No. 1,458. Term of patent 3½ years. (Cl. D61-4.)



The ornamental design for a portable air cooling device, substantially as shown. (Continued on next page)

"RECO-FAB" FROSTI-VAULT



Heavy Duty Sectional Metal Vault for Temperatures as Low as 25 BELOW ZERO

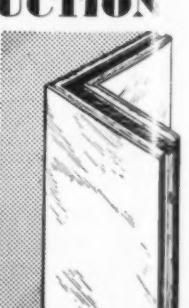
- Any length to 120 ft.
- Widths of 8, 10 and 16 ft.
- Heights of 8, 10 and 12 ft.
- Insulation 4, 6, 8, and 10 in.

IT'S BETTER BECAUSE IT'S ENGINEERED BETTER

EXCLUSIVE RECO FEATURE NO. 3

CORNER POST CONSTRUCTION

More costly constructions than overlapping corner panels. Corner one piece section offers the advantage of greater rigidity, greater flexibility of door placement, and easier erection. Door can be relocated anywhere at will.



(Refrigeration Engineering Corp.) RECO PRODUCTS DIVISION

2020 Naudain Street, Phila. 46, Pa.

Policy on Deferments for Reservists--

(Concluded from Page 1, Column 3)
not a reservist is employed in a critical occupation or essential activity are lists of such occupations and activities drawn up by the departments of labor and commerce respectively.

On the labor department's critical occupation list, the only specific mention of air conditioning and refrigeration is in the classification of mechanical engineer.

The official definition of a mechanical engineer is a person who "performs one or more of the following functions in the field of mechanical engineering requiring the fulfillment of educational, experience, or legal qualifications established by engineering colleges or licensing authorities:

"Designs and supervises the manufacturing and maintenance of such equipment as tools, engines, industrial machinery, and refrigeration and air conditioning apparatus:

"Performs research and development to improve mechanical devices, such as gasoline and Diesel engines, steam turbines, industrial furnaces, rolling mills, and propeller assemblies.

"Creates designs, writes specifications, and supervises installation and maintenance of complex mechanical equipment in industrial plants, mines, steam power plants, ocean-going vessels, and other similar establishments.

"Plans and supervises operation of distribution systems for heat, ventilation, gas, water, and steam."

Other critical occupations that apply in our industry include electrical instrument repairman and maintenance mechanic.

An electrical instrument repairman is defined as one who "cleans, adjusts, repairs, and calibrates electrical instruments and control devices, such as voltmeters, recording gauges, relays, thermostats, motor-starting boxes, and other precision electrical apparatus. Job requires a combination of the skills of a machinist and an electrician."

A maintenance mechanic "keeps machinery and mechanical equipment of an establishment in a state of good repair; examines machines for defects in operation, locating faulty parts by listening to the machine while it is in operation or by other methods based on his mechanical knowledge."

"Dismantles or partially dismantles machine to gain access to defective part or removes part, using various hand tools such as wrenches, screw driver, and pliers. Reassembles machine, making necessary adjustments to insure efficient operation. Is usually required to have a knowledge of the operation of machines he repairs."

Other critical occupations are listed at the end of this article.

On the commerce department's broad list of essential activities are included the manufacture of store fixtures, household electric appliances, scientific and controlling instruments, wholesalers "primarily en-

gaged in buying, taking title to, and where customary, physically storing and handling goods, and selling the goods at wholesale, principally to retailers, and industrial and commercial users," retailers of general merchandise such as home furnishings and appliances, and miscellaneous repair services.

The commerce department explained that this lengthy list was drawn up to rule out strictly non-essential businesses. It will be cut down later "depending on the requirements of the situation."

However, reports from the defense department indicate that the extremely wide range of activities covered will cause the list to carry little weight with the military.

Secretary of Defense Louis A. Johnson asserted that a delay in call to active duty may not be considered as an indefinite exemption from military service.

Deferments in all cases will be made on an individual basis and may be terminated at any time because of overriding military considerations.

Johnson declared that applications for deferment should be made when the reservist receives his call to active duty. It should be made in writing by either the reservist or his employer. The application should explain in detail the nature of the reservist's job and its relation to war production.

Requests for delay in call should be addressed as follows:

Army—Through reservist's unit commander or unit instructor to the commanding general of the army area in which he resides.

Navy—to the chief, Bureau of Naval Personnel for officer reservists. For non aviator officers via their naval district commandant. For aviation officers via the chief of naval air reserve training, naval air station, Glenview, Ill.

For non-aviation enlisted personnel to their naval district commandant and for aviation personnel to the chief of naval air reserve training at address above.

Marine Corps—Individual must make request through chain of command starting with local inspector instructor.

Air Force—To headquarters of the numbered air force for the area in which the reservist resides.

National Guard—To the adjutant general of the state concerned.

Distributors, Inc. To Represent Whiting In Three-State Area

PHILADELPHIA—Appointment of Distributors, Inc. here as regional representative in a three-state area surrounding Philadelphia for the Whiting line of home appliances and air conditioners was announced recently by Harry S. Funk, secretary of the distributorship.

The Distributors, Inc. territory covers eastern Pennsylvania, southern New Jersey, and Kent and New Castle counties in Delaware.

Reservists In Any of These 48 Fields May Be Eligible for Deferment

The 48 critical occupations listed by the department of labor are:

PROFESSIONAL AND RELATED OCCUPATIONS

- Agronomist
- Architect, Marine
- Bacteriologist
- Biologist
- Botanist
- Chemist, analytical
- Chemist, biological
- Chemist, organic
- Chemist, physical
- Chemist, inorganic
- Clinical psychologist
- Dentist
- Die designer
- Engineer, ceramic
- Engineer, chemical
- Engineer, civil
- Engineer, electrical
- Engineer, industrial
- Engineer, mechanical
- Engineer, mining
- Engineer, petroleum
- Engineer, sanitary
- Engineer, chief, marine
- Entomologist
- Geologist
- Geophysicist
- Master, ship
- Mathematician
- Metallurgist, extractive
- Metallurgist, physical
- Nurse, professional
- Osteopath
- Parasitologist
- Pharmacognost
- Pharmacologist
- Physicians and surgeons
- Physician
- Plant pathologist
- Teacher (critical occupations only)
- Tool designer
- Veterinarian

SKILLED OCCUPATIONS

- Aircraft mechanic
- Aircraft-engine mechanic
- Airplane mechanic
- Apprentice (critical occupations only)
- Boilermaker
- Boiler layout man
- Boiler fit-up man
- Boiler-shop mechanic
- Boilermaker, marine
- Bricklayer, refractory
- Coremaker
- Die maker
- Die setter
- Electrician, airplane
- Foreman (critical occupations only)
- Glass blower, laboratory apparatus
- Instrument repairman; aircraft instrument man; electrical instrument repairman
- Lay-out man, marine
- Loftsmen, marine; mock-up assembler; loftsmen, aircraft; boilermaker-loftsmen
- Machinist—includes: machinist; bench machinist; instrument maker; laboratory mechanic lay-out man; marine machinist; job setter
- Maintenance, mechanic
- Millwright
- Model maker
- Molder—includes only: molder, bench molder, finish; molder, floor; molder, pattern
- Patternmaker
- Petroleum cable driller
- Petroleum rotary driller
- Precision-lens grinder
- Precision-lens polisher
- Roller, iron and steel
- Ship rigger
- Stillman, petroleum processing
- Tool and die maker
- Tool maker

Phillips To Operate In Denver as Agent for La Crosse, Other Firms

DENVER—H. A. Phillips, of La Crosse Cooler Co., La Crosse, Wis., will establish a sales office here on Sept. 1, to represent several manufacturers in the Mountain States.

The La Crosse lines of commercial refrigeration equipment will be made available to dealers in several states in that area, along with other lines regularly handled by this type of dealer.

Phillips will operate as a manufacturers' representative, all sales being made to dealers to whom shipments move direct from the manufacturer. Other lines will include seating equipment of Sterling Mfg. Co., St. Louis; beer dispensing equipment of the Cornelius Co., Minneapolis; meat and food cases, reach-in refrigerators, and other commercial equipment.

Phillips has been associated with La Crosse for several years, since 1948 in the capacity of sales manager. His coverage of the Denver area will now provide complete national representation on La Crosse products. Other offices were previously established in New York City, Atlanta, Pittsburgh, Fort Worth, and Los Angeles, with two representatives working direct out of the factory.

The apparatus will be delivered by the end of 1950.

Draper Buys Maytag El Paso

Hospital Near Tel Aviv To Get Air Conditioning

PITTSBURGH—A modern air conditioning system and automatic elevators valued at \$125,000 will be installed in the new Beilinson hospital in B'nai Brock, on the outskirts of Tel Aviv, it was recently announced by the Westinghouse Electric International Co.

Kupath Holin, an Israeli health insurance organization, is building and equipping the new 400-bed hospital unit as the first stage in its program to provide complete medical facilities for its members.

Air conditioning will be provided for five of the structure's eight floors, which contain laboratories, operating rooms, auditoriums, and restaurants.

Three refrigerating systems, consisting of three 65-hp. compressors, condensers, and water chillers will supply chilled water to 10 central-plant type air conditioning units located throughout the building. Pumps, a cooling tower, grilles, and controls are also being furnished.

Vertical transportation will be supplied by two automatic hospital elevators and one passenger elevator.

The apparatus will be delivered by the end of 1950.

Calif. Code Dispute--

(Concluded from Page 1, Column 4)
furthermore, they are divided in the matter.

"Were such a proposal adopted each of the classifications of contractors would seek from the board amendment of their particular section of the Administrative Code.

"The protection of the public is not involved as local ordinances already require permit and inspect on where 'solid connections' are made.

"The exemption as contained in Section 7048 of the Business and Professions Code (\$100 exemption) would except the 'solid connection' in practically all instances where the connection of appliances is concerned.

"The adoption of the proposed amendment would cause chaos and confusion among many of the classifications of contractors and would be impossible of enforcement.

"The proposed amendment, if adopted, would be a nullity in view of the provisions of Section 7059 of the Business and Professions Code ('incidental and supplemental')."

Opposition to the proposal had been spearheaded by the refrigeration contractor association, which filed written objections with the board on April 4. The proposal was protested by representatives of the association and several other groups at a subcommittee of the board on May 22.

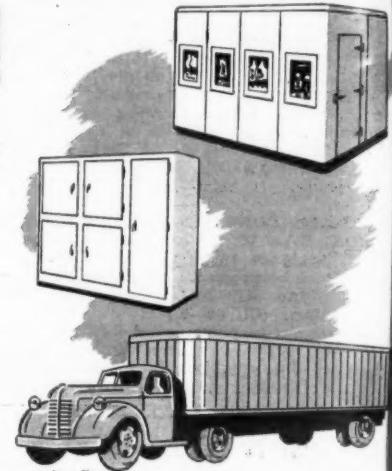
The board's reasons for dismissing the proposal were substantially the same as those which were advanced by the groups protesting the action.

No Shrinkage! No Blast!

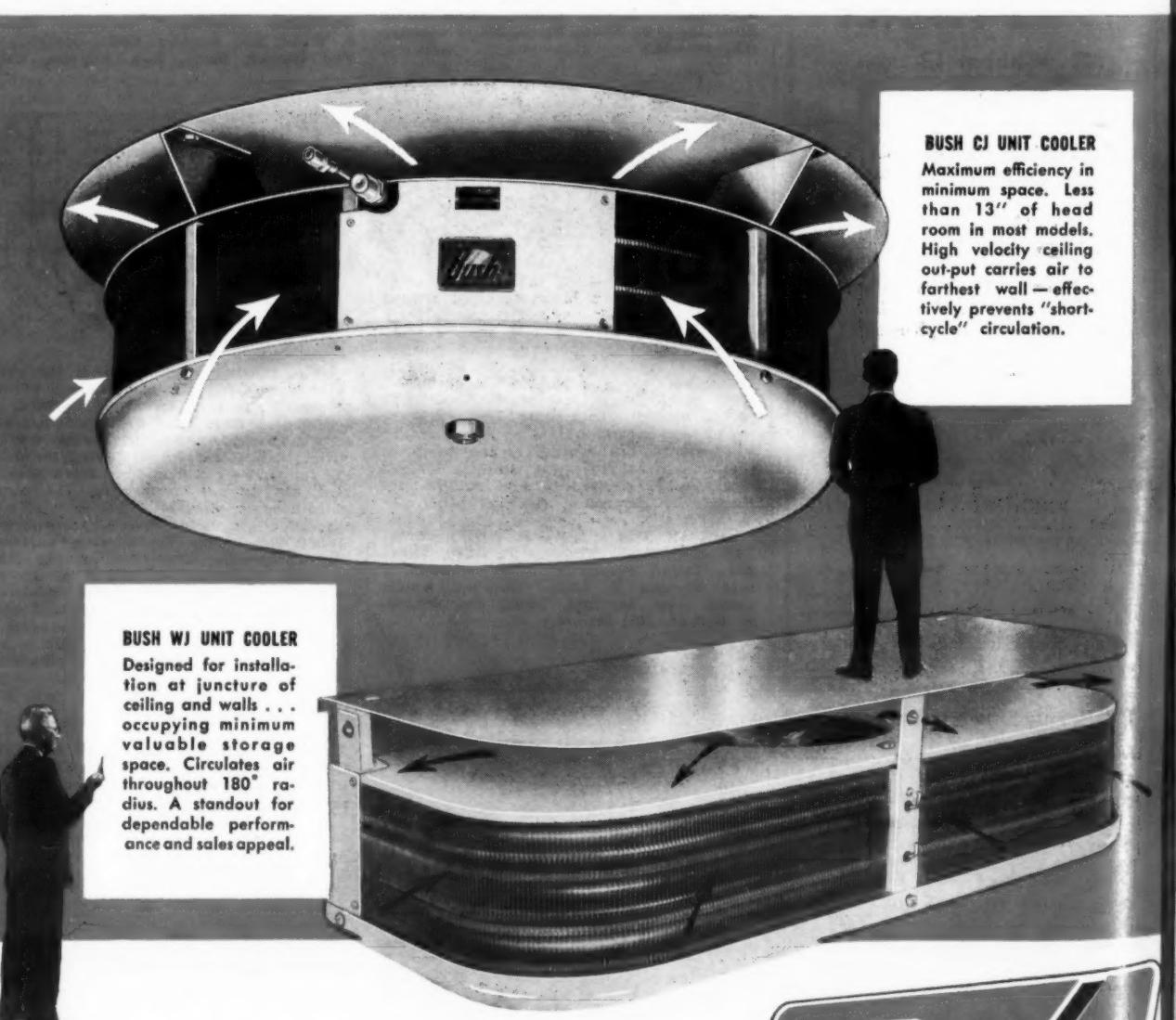
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BUSH HEAT TRANSFER PRODUCTS are expertly designed and engineered . . . fabricated of top-quality materials to rigid specifications . . . carefully tested and accurately rated. Result: easier selling, faster installation, less service . . . more PROFIT. All this adds up to more customer satisfaction, and more

business for you. Get acquainted with the BUSH Factory Representative in your territory. He's an expert refrigeration and air conditioning engineer familiar with newest application techniques . . . a good man to know. He'll be glad to help with plans and specifications on your next important job.



BUSH CJ UNIT COOLER
Maximum efficiency in minimum space. Less than 13" of head room in most models. High velocity ceiling out-put carries air to farthest wall—effectively prevents "short-cycle" circulation.



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